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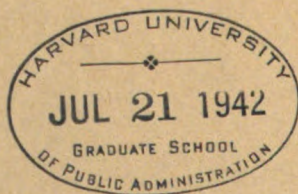
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Public Documents of Massachusetts:

BEING THE

ANNUAL REPORTS

OF VARIOUS

PUBLIC OFFICERS AND INSTITUTIONS

FOR THE YEAR

1893.

PUBLISHED BY THE SECRETARY OF THE COMMONWEALTH.

Vol. XII.

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1894.



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NINTH ANNUAL REPORT
OF
THE BOARD
OF
GAS AND ELECTRIC LIGHT
COMMISSIONERS
OF THE
Commonwealth of Massachusetts.

—
JANUARY, 1894.
—

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

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Commonwealth of Massachusetts.

The Board of Gas and Electric Light Commissioners respectfully submits its Ninth Annual Report.

In November last Hon. James W. McDonald resigned from the Board. In August last Hon. Charles A. Towne retired from the Board, his term of service having expired.

There are now one hundred and thirty-four companies and individuals engaged in business under the supervision of the Board; twenty-four of these supply both gas and electric light, sixty-two only electric light and forty-eight only gas. The five towns furnish only electric light.

The corporate name of the Electric Light and Patent Flooring Company has been changed to Amesbury Electric Light, Heat and Power Company.

The plant of the Middleborough Gas and Electric Company has been purchased by the town of Middleborough.

The Berkshire Electric Light, Heat and Power Company has been organized.

The Brookline Gas Light Company has extended its mains and is supplying gas to the city and to consumers in certain parts of the city of Boston, including the whole of that part formerly Roxbury.

The Boston Gas Light Company and the Brookline Gas Light Company have during the year begun to supply water gas, and the Lowell Gas Light Company to supply water gas mixed with coal gas.

The plant of the Lexington Gas Light Company for generating electricity for light has been erected and the orders of the Board with reference thereto have been found to have been complied with.

The work of the Board, in making the computations for its report, is interfered with by the delay of certain companies in filing their reports. There were thirty delinquent companies this year, as against forty-five last. Of these twenty-one were filed in September; six in October; two in November; while that of one company has not been filed at all. The companies would help the Board if they would file their reports at as early dates as possible. There is no reason why all reports should not be in before the time limit fixed by law.

BAY STATE GAS COMPANY.

By the terms of the Statutes of 1893, chapter 474 (see appendix), the charter of the Bay State Gas Company of Massachusetts was annulled, unless the company should cause a certain obligation for \$4,500,000, dated March 11, 1885, and issued by said company as part consideration for a contract for the construction of its works, to be legally annulled and discharged and surrendered to the Commissioner of Corporations.

It was further provided that the company might, to secure the cancellation of this obligation, issue to its holders stock to an amount equal to the excess of the actual market value of the property of the company over \$500,000, not including any value for its franchise.

On the petition of the Bay State Gas Company to the Supreme Judicial Court, Messrs. George O. Shattuck, Thomas L. Livermore and Otis Kimball were appointed by the court commissioners to determine the value of this property, and after hearings, in which the city of Boston and the Bay State Gas Company were represented by counsel, they found on October 30 that the actual market value of the property was \$2,000,000.

The obligation was cancelled November 24, by the Mercantile Trust Company of New York, its holder, and after cancellation it was deposited in the office of the Commissioner of Corporations.

At a meeting of the stockholders of the Bay State Gas Company of Massachusetts, held on November 27, the capital of the gas company was increased to \$2,000,000, in accordance with the valuation of the commissioners.

The additional \$1,500,000 of stock was issued to the Mercantile Trust Company, trustee, the then holder of the \$4,500,000 obligation, to be held by it in trust for the holders of certain notes or bonds of the Bay State Gas Company of New Jersey under two trust deeds, the equity, after these holders are satisfied, belonging to the Bay State Gas Company of Delaware.

EFFECT OF REDUCTION IN THE PRICE OF GAS UPON CONSUMERS'
BILLS.

The price of gas having been reduced by the different gas companies doing business in Boston, the mayor, on November 9, sent a message to the city council, from which the following extract is taken : —

Some question having arisen as to whether the citizens were receiving the full benefit of the reductions, I requested the City Engineer to enquire into the matter.

These reductions should effect a saving of half a million dollars yearly in the gas bills of the fifty thousand gas consumers of this city.

The actual gas bills for the months of May, June, July and August, 1892, and for the corresponding four months of 1893, were procured for the following buildings, all situated in the territory formerly supplied by the Boston Gas Light Company exclusively, viz. :

American House,
Hotel Brunswick,
New England House,
Parker House,
Quincy House,
Revere House,
Tremont House,
United States Hotel,
The Vendome, .
The Victoria,

Young Men's Christian Union,
C. F. Hovey & Co.,
Jordan, Marsh & Co.,
Macullar, Parker & Co.,
United States Custom House,
United States Post-Office,
Young's Hotel,
New York & New England
passenger station.

It was found that the gas bills of these houses for the four months in 1892 amounted to \$17,820.99, while the bills for the corresponding period of 1893 were \$13,281.57; a reduction of \$4,539.42, or almost exactly twenty-five and a half per cent.

It thus appears that these particular consumers, whose experience may be assumed to have been representative of that of the people generally, received the full benefit of the reduction in the prices charged by the Boston Gas Light Company from \$1.30 to \$1 per thousand cubic feet.

The Board, deeming it advisable to make still further inquiries, asked the Boston Gas Light Company for the following information: One hundred and ninety-four names of possible consumers were selected at random by the Board, on different streets in the city, and the Boston Gas Light Company was requested to give the amount of their gas bills for the six months ending Feb. 1, 1894, and at the same time the gas bills of the same houses for the same period a year ago. Houses occupied by the same families during the two periods were selected.

The company promptly complied with this request. As almost all these accounts were quarterly accounts, it was obliged to take the six months ending Jan. 1, 1894, and compare them with the corresponding six months of the preceding year. In 28 cases the bills were found to be larger; in 144 cases, smaller. The aggregate of the 28 bills in the first period was \$1,143.48; in the second, \$1,359.16, — an increase of \$215.68. The aggregate of the 144 bills in the first period was \$6,345.37; in the second, \$4,620.71, — a decrease of \$1,724.66. (In a large number of cases, owing to the dwelling-houses being closed until fall, the company was obliged to take the period running from seven to nine months in making the comparison.)

A further test was made. This company has its territory divided into nine ledger districts, the division line being fixed so as to make the number of meters as nearly equal as possible. A list of bills of 135 customers, taking 15 from each district, was made by the book-keepers of the company, in pursuance of instructions to take out indiscriminately 15 accounts from each ledger district, and the bills of consumers of January, 1893-4, were compared. The aggregate of these bills for January, 1893, was 4,855,900 feet, sold for \$6,312.67; for January, 1894, 4,479,900 feet, for \$4,479.90. In the business part of the city there was a considerable decrease in the amount of gas consumed.

SPRINGFIELD PETITION.

This was an application by gas consumers in Springfield against the Springfield Gas Company. The hearings were given in Springfield and both parties were represented by counsel.

It appeared that the Springfield Gas Company had been the only company engaged in the manufacture and supply of gas in that city since 1848, the date of its charter. But few facts were submitted beyond those contained in the published reports of the Board, but, in accordance with the request of the petitioners, an extended examination was made of the company's affairs as revealed by its records and accounts.

The features which it seemed most important to consider in fixing a fair price were the capitalization, the steam department, the present condition of the plant and recent profits.

In the year 1879, under the general authority granted by the Legislature, the company added to its other business the supply of steam for general distribution for heating stores and dwellings. For a considerable time afterward this branch of the business seems to have been unprofitable and a considerable amount of gas profits was used to maintain it. In the opinion of the Board such a condition ought not to exist; the money invested in the steam plant should look for its profits to the steam business alone, and this principle has been followed in fixing the price.

From an examination of the plant it is apparent that if the business of the company is to increase at its normal rate large sums must be expended in the near future for extraordinary repairs and extensions.

Throughout its history the company has been uniformly prosperous and until recent years to a greater degree than most others of its size within the State. The attention of the Board was particularly called to the capitalization of the company and the manner of its growth has been carefully studied. It appears that it has increased from time to time until from originally less than \$50,000 it has reached the sum of \$500,000; although the payment of this increase seems to have been made in cash and according to law, yet from the relation of various new issues of stock to the dividends declared it may be inferred that, directly or indirectly, a very large percentage has been paid for by the divided profits of the company. This is perhaps the most important feature for consideration in connection with a study of this case. The policy seems to have been to maintain the capital on a level with the con-

struction account by declaring dividends to the amount of its increase and issuing new stock for the same amount. It may be stated that when this was done no legal objection existed to such a course. All profits of the company, under ordinary conditions, as a matter of law, belong to the shareholders, and even when invested in plant may be divided among them if they see fit; but such a course is to-day generally recognized as against the best interests of a company and contrary to the spirit of existing legislation in this Commonwealth. By such a method the capital account inevitably becomes higher in proportion to the company's output than a sound and conservative policy can approve.

It is important to consider, however, that every dollar of the new capital issued in this manner in this company was represented by money actually put into the development of the plant and that the entire capital is fairly entitled to dividends, although at a lower rate than might be permissible under a different policy.

When gas reaches the consumer it is burdened with three obligations: first, its fair cost; second, a fair dividend on a reasonable amount of capital; and third, such excess as will give the company sufficient surplus to enable it to meet extraordinary accidents and conduct its business with the highest economy. The consumer is in duty bound to pay these charges. If he pays more and the company converts this excess into new capital, increasing it to a figure beyond the fair amount demanded by the business, the consumer is burdened with too high a price for the gas in the first instance and thereafter with a dividend charge upon his own contributions. A company which pursues this policy and to this extent fails to appreciate its obligations to its customers must sooner or later pay the penalty. The growth of the company's capital and its policy in reference thereto are recognized by this Board as facts which it is proper and necessary to consider in adjusting complaints by consumers.

In recent years the company's profits have not been extravagant, and a reduction in rates to the extent recommended can only be secured if the plant is to be maintained at its proper efficiency, either by a substantial increase of business or by a reduction in the dividends. If the latter becomes necessary, it will be for the

reason, as suggested in a former case, that the injudicious conversion of profits or supposed profits into stock imposes in the end a certain loss upon consumers or future holders.

The Board recommended that from and after the first day of May, 1893, the net price of gas supplied by the Springfield Company should not exceed \$1.40 per thousand feet.

The vote upon this was passed by the Board on April 14, and April 24 the recommendation was adopted by the company.

EAST BOSTON PETITION.

This was an application by consumers of the East Boston Gas Company for a reduction in the price and an improvement in the quality of its gas.

The public hearings which the law requires were held at the office of the Board. The petitioners were represented by counsel and the company by its executive officers. But little attention was given at the hearing to the question of quality, as the particular contention of the parties seemed to be with respect to the price. The candle-power of the gas supplied by the company has been uniformly and without exception, as appears by the report of the State inspector, in excess of the limit fixed by the statute.

This company was established and began to supply gas in the year 1853, and has been the only company engaged in the business within its territory. Throughout its history it appears to have been managed with rigid economy and has never watered its stock. Its dividends have been regular, but the average dividend does not seem to have been unfairly large.

Very little criticism was made at the hearing of the company's management or its condition, but the attention of the Board was particularly directed to the size and character of the company's surplus, and opposition to such a surplus was shown by the petitioners.

It has been the policy of the company's management throughout its history to refrain from dividing among the stockholders the entire profits, as was undoubtedly their legal right, and to regularly lay aside a portion of them with the special view of creating this surplus; this policy, we believe, should be commended and

encouraged rather than condemned, since the history of the business shows that where other conditions are equal the lowest prices are afforded only by those companies that have systematically pursued it. So much of this surplus as is invested in plant or equipment gives strength to the corporation and aids in maintaining a low price, since the facilities of a company are increased thereby without a corresponding increase of capital demanding dividends. The surplus in this case amounts to not far from \$80,000, or about 35 per cent. of the capital of the company. A portion of this is invested in the plant and the personal property reasonably necessary for the conduct of its business. Something more than one-half is invested in interest-bearing securities. It is possible that through improvements in the plant some slight reduction in the cost of gas may be made, but the grounds for any considerable reduction in price must rest in a measure upon what is a fair and proper treatment of this surplus. In this consideration it becomes an important and difficult question to determine the proper use to which these investments should be put, to discover what are the equitable interests of the stockholders and the public in them, and to determine how far and in what way the consumers may properly reap advantages for such accumulation. In view of all the relations existing between the two parties in interest the Board is unable to agree that it should be treated as the exclusive property of either. If the affairs of the corporation were to be wound up by proceedings for dissolution, this sum would unquestionably belong and be distributed ratably to the shareholders. They have to-day an undoubted legal right to convert these securities into cash and to divide the proceeds in the same manner as they would distribute any other portion of their profits. Such a course, however, would unquestionably be against the interests of the corporation and would probably prove fatal to its prosperity.

It does not appear that the prices charged by the East Boston Company during any period of its history have been notably higher than those of other companies of similar size; it may be even doubted whether they have yielded on the whole an average price so high for much of its history. Its output for street lighting has been a larger percentage of its entire consumption than in the case

of most companies, and during a considerable period this part of its gas was supplied at the same price as that of its much larger neighbor in the main portion of the city of Boston.

From the public the company has received, without any consideration and at a time when it was probably not prepared to pay a consideration, a franchise which, although of doubtful value then, has proven since to be of the highest value to its owners. Very much of the company's profits has come from the natural growth of wealth and population in the territory which it supplies and to which its corporate management has directly contributed but a small share.

This surplus must, we believe, be regarded as the combined result of a wise corporate management and the contributions on the part of the public. It would seem that the company is under obligation to so use a surplus of this character that substantial advantages may accrue from it to the public, and such a course will bring added strength to the corporation itself.

From an examination of the works it is apparent that in the interest of the public there is an immediate demand for the investment in the plant of a portion of this surplus, and for a yet larger portion in the near future if the demands upon the company increase as in the past.

A reduction of price may generally be expected to secure an increased output. This expectation is not always realized, and companies are frequently unwilling to incur the risk of loss by allowing this expectation to be influential in fixing a price. But the surplus of this company may be regarded in the nature of an insurance fund against the chances of loss by such action in this case, and the Board therefore named a price somewhat lower than the figures of present cost and output might seem to warrant if they only were considered.

In view of all the facts the Board recommended that the net price of gas supplied by the East Boston Company from and after the first day of May, 1898, should be \$1.50 per thousand feet.

Notice of this recommendation was sent to the company and was adopted by them at the first meeting of the directors thereafter held.

BOSTON, ROXBURY, SOUTH BOSTON AND DORCHESTER PETITIONS.

These were applications against the Roxbury, Dorchester and South Boston companies for a reduction in price by separate petitions from consumers in the districts of each company, and by the mayor of Boston against the same companies and against the Boston Gas Light Company, the latter petition being supplemented by that of a large number of private consumers. Two sets of hearings were given, as requested by the parties, and public advertisement of the same was made, as required by law.

To support their requests the petitioners relied chiefly upon the facts contained in the various returns filed with the Board as required by law, and upon the published reports of the Board itself. The petition of the mayor against the Boston Gas Light Company was by its terms based upon a special report made by this Board to the Legislature in 1892, which exhibited the relations of the Boston company to the allied companies and concluded with the statement that gas could be supplied by that company within its territory at a fair profit for \$1 per thousand feet to all consumers. At the hearing the case was rested principally upon the facts and figures which that report contained. Although this was based upon a careful examination of the company's affairs, its representatives had not been heard in reference to the findings; the investigation was entirely *ex parte*, and could not fairly be regarded as conclusive against the corporation, nor could a price fixed by the Board be made binding upon the company without such further hearing as the statute requires. It constituted, however, a *prima facie* case in support of its conclusions. At the hearings an effort was made by the company to control in some measure the facts and conclusions of the report, but, in the opinion of the Board, without success. Nor did a careful examination of the returns made by the company after the date of the report furnish sufficient ground for a modification of its conclusions. The Board, therefore, fixed the price of gas supplied by the Boston company after May 1 at \$1 per thousand feet, in accordance with its former report and the request of the petitioners.

This petition contained a further request that a special and lower rate be fixed for gas supplied to the city of Boston in its corporate capacity, but this request was waived at the hearing and was not considered by the Board.

It is to be noted that the companies named, although having a common control, are yet distinct persons in law, making separate returns of their affairs, would stand as distinct corporations before the courts, and must be treated as such by this Board.

The South Boston company has numerous shareholders who have held their stock for years, and have but little interest in common with the present management.

The Dorchester company sustains in many respects an independent relation peculiar to itself.

The Board has always taken the position that companies which have received from the public as a free gift extensive and valuable privileges by the exercise of which alone their profits become possible, are bound to return to the public the most efficient service at the lowest prices consistent with a fair profit, and for this purpose to avail themselves of all reasonable facilities and expedients known to the business in which they are engaged. If by reason of superior skill in management, or by the existence of a common control in companies supplying contiguous territories, special economies become available, while the corporation which secures these results is entitled to a liberal reward, the public should also receive, as a matter of sound business policy, some share in the benefits thus made possible. Many advantages have resulted from the intimate relations between the companies under consideration, and some share of the possible benefits has already been received by their respective consumers in the reductions in price which all the companies under consideration have made under the present management. To enable the Dorchester and Roxbury companies to do this, they have purchased their gas wholly or in part from the Bay State or Boston companies, and if the present prices are to be maintained or lower prices reached, this policy must be continued. The works at Dorchester and Roxbury are not of a character to manufacture gas of the quality now distributed within their territories, nor of a capacity sufficient to supply the

demand; neither can they be equipped therefor without a large expenditure of money, which must either be provided out of income or additional capital, with the necessary added burden upon the consumer.

The works at South Boston have nearly or quite reached the limit of their capacity, and if the candle-power there is to be increased or the consumption largely developed and the lowest reasonable prices secured, it will be obliged in the near future to purchase at least a portion of its gas from some other company.

It remained to be considered whether a fair and reasonable share of the benefits available from the peculiar relations of the several companies named had been received by the consumers through the reductions already made in price. In the opinion of the Board, such has not been the case. By the introduction of improved methods and the intimate relations existing between the companies, although prices have been reduced, the combined profits have been increased to an amount beyond what seems to be the fair and reasonable share which the company should retain. These profits have been principally derived, however, from the territory occupied by the Boston company, and but a small percentage from the suburban companies. The proper reduction of these profits must therefore be secured principally from the reduction of the price charged by that company. Even though the suburban companies — the Roxbury, Dorchester and South Boston — should purchase all their gas of the same company and at the same price, it cannot be assumed that they would all be able thereby to supply their consumers at the same price or at as low a price as is fixed for the territory of Boston proper. The cost for distribution and for a fair dividend upon the capital employed must vary with the character of each company's territory, the density of its gas-consuming population and the relation of its output to its capital. In Boston proper nearly five times as much gas is consumed per mile of main as in any other of the areas mentioned, and to pay the *same* rate of dividend in the Roxbury company requires twice as much, and in the Dorchester and South Boston from three to three and a half times as much per thousand feet as in the Boston company.

These facts alone are sufficient to make it impossible for these suburban companies to supply their respective territories at the same price with each other or as low as the Boston company. A fair and low price which will also be uniform throughout the territory now included in the city of Boston can legally and reasonably be required only when that territory is supplied by a single corporation in law and in fact.

In addition to the cost of manufacture or a fair price for gas purchased and a fair cost for distribution, including management and taxes, the Board believed it necessary and advisable to add a fair allowance for depreciation, and extensions or improvements. Extraordinary demands for extensions may properly be met by the issue of new capital, but the ordinary demands which a progressive management desires and is bound to meet may fairly be provided for out of income when the price of gas is not made so high as to be burdensome. This is the course which has been pursued by the best managed companies in this State for a long term of years—by those in which the prices to-day are the lowest—and has probably contributed more than any other single factor to make those low prices a possibility. A study of the history of the business will show that the benefits arising from the increase of population and output are most surely secured to the consumer by an adherence to this policy. By this the capital charge is kept low, and the relation of capital to output is perhaps the most important single factor bearing upon the cost of gas to the consumer. It proves advantageous to the public by making a low price possible, and to the shareholder by adding security to his investment. An increased consumption demands added facilities for manufacture and distribution, and if the share capital remains the same, the amount per thousand feet which consumers must pay for fair and reasonable dividends rapidly decreases.

The prices fixed assume, as indicated above, that these companies will continue to buy a part or all of their gas from the Bay State company of Massachusetts. The prices heretofore charged by this company have been in excess of what is essential to a fair profit, and have imposed an unjustifiable burden upon the community. This has been due largely to an effort to secure the inter-

est charge on a bond or obligation of \$4,500,000 which is included in the liabilities of the company. It appeared that this obligation was given in payment of a contract which was never fully performed, and that the consideration actually received by the company therefor was much less than its face value. As the rate to be paid upon this bond is dependent upon the profits of the company, its effect upon the public interest is not essentially different from capital stock issued without consideration, and is wholly contrary to the policy of the State as indicated by its legislation. Such liabilities cannot be allowed to stand in the way of fair prices by dependent companies. The Board therefore endeavored in the prices named to allow to the Bay State company a fair return only upon the actual value of the investment in its business.

Upon the foregoing considerations and a careful examination of the affairs of the several companies as exhibited in their returns and accounts, with allowance for reasonable variations in the cost of labor and materials, the Board recommended that on and after the first day of July, A.D. 1893, the net price of gas supplied by the Roxbury company should not exceed \$1.20 per thousand feet; by the Dorchester company should not exceed \$1.30 per thousand feet; and by the South Boston company should not exceed \$1.30 per thousand feet.

These recommendations were adopted by the Boston company on April 22, and by the South Boston, Roxbury and Dorchester companies on June 19.

APPEALS OF THE BOSTON GAS LIGHT COMPANY, THE ROXBURY GAS LIGHT COMPANY AND THE BAY STATE GAS COMPANY.

In the matter of permits issued by the superintendent of streets of the city of Boston to the Brookline Gas Light Company:—

These applications were based on the action of the superintendent of streets of the city of Boston in issuing to the Brookline Gas Light Company permits to open certain streets in said city for the purpose of laying gas pipes.

The city of Boston, by the corporation counsel, and the Brookline Gas Light Company, by its counsel, appeared in opposition

and moved the dismissal of the appeals on the ground that the facts relied upon by the appellants did not present a case within the jurisdiction of the Board.

The several applications were framed upon similar lines, the material averments being as follows : —

COMMONWEALTH OF MASSACHUSETTS.

To the Honorable Board of Gas and Electric Light Commissioners : —

Respectfully represents the Company, that it is a corporation established under the laws of said Commonwealth; that it was on the 27th day of February, A. D. 1893, and has been since, a gas company existing and in active operation in the city of Boston in said Commonwealth, and that the mayor and aldermen of said city, assuming to act through the superintendent of streets thereof, on the 17th day of March, 1893, gave consent to the Brookline Gas Light Company to open street in said city, by a permit similar in form to the permit hereto annexed, for the purpose of laying gas pipes therein, and likewise, on the 27th day of February, 1893, gave consent to the said Brookline Gas Light Company to open the following streets in the city of Boston, namely : — by a similar permit, for the purpose of laying gas pipes therein. And further represents that said consent in each and every instance was given unlawfully, without authority, and without a previous public hearing, or any notice thereof by publication or otherwise, and if valid, is unjust and greatly to the damage of said Boston Gas Light Company and the people of said city.

Wherefore, the said Company, being aggrieved by the granting of said consent, in each of the above instances, but saving all its rights and remedies in the premises, and without admitting the validity of said consents, appeals therefrom to your Honorable Board, and prays that its appeal may be sustained and said consent revoked in each instance.

Boston, March 20, 1893.

The Board derives its authority to adjudicate in relation to opening the streets for the purpose of laying gas pipes under sections 10 and 16, chapter 314, Acts of 1885, which are as follows : —

SECT. 10. In any city or town in which a gas company exists in active operation, no other gas company, nor any other persons, shall dig up and open the streets, lanes and highways of such city or town, for the purpose of laying gas pipes therein, without the consent of the mayor and aldermen or selectmen of such city or town, after a public hearing before said mayor and aldermen or selectmen and notice to all parties interested by publication or otherwise.

SECT. 16. Any gas company which, or any person who, is aggrieved by the decision of the mayor and aldermen or selectmen of a city or town under the provisions of the tenth section of this act may appeal therefrom to said board within thirty days from the notice of said decision, and said board shall thereupon give due notice and hear all the parties in interest and its decision thereupon shall be final.

The following facts in evidence have a material bearing upon the question whether the conditions essential to the application of these sections to the Brookline Gas Light Company concurred at the time of issuing said permits : —

The Brookline Gas Light Company was organized under chapter 17, Acts of the year 1853, and its powers were extended by chapter 104, Acts of 1854, chapter 151, Acts of 1860, and chapter 180, Acts of 1870.

The Boston Gas Light Company was organized under chapter 41, Acts of 1822, and by chapter 74, Acts of 1837, additional powers were conferred.

The Roxbury Gas Light Company was organized under chapter 193, Acts of 1852.

The Bay State Gas Company was organized in 1884, under general law.

The works of the Brookline Gas Light Company were originally established in the town of Brookline, where it continued to manufacture all its gas until April, 1893, when the old works were abandoned and the company moved to its present works on the banks of the Charles River, in the Brighton district. Said company, at the time of granting said permits, and prior to the passage of said chapter 314, occupied with its pipes and supplied gas to consumers in that part of Boston which was before its annexation the town of Brookline, and also in the Brighton district, and it maintained a gas pipe extending from its Brookline line across the sluiceway to a point on Charlesgate East, in Boston proper. The selectmen of the town of Brighton granted, Sept. 11, 1865, permission to the Brookline Gas Light Company to open the streets of that town for the purpose of laying its pipes. In 1873 the company, by request of the superintendent of lamps of the city of Boston, laid the pipe across the sluiceway above referred to, for the purpose of supplying gas to a city lamp located at the terminus of said pipe, and the company supplied gas to this lamp until Dec. 8, 1886, when the light was discontinued by the city. The pipe remained until taken up and replaced, by the Brookline company, by another pipe, in 1893.

In 1875 the city of Boston, pursuant to an order passed by the board of aldermen, February 8 in that year, contracted with the

Brookline company to supply gas for public purposes in the section of the city traversed by its pipes. Feb. 27, 1893, the city of Boston entered into a contract with said company to furnish gas in the districts known as the city proper, Roxbury and Brighton. The Boston Gas Light Company, at the time of granting the said permits and prior to the passage of said chapter 314, maintained its pipes and supplied gas to customers in Boston proper.

In 1822 the board of aldermen of the city of Boston granted to Alexander Parus, who afterwards became one of the incorporators of the Boston Gas Light Company, permission to open the streets of Boston for the purpose of laying gas pipes. In 1854 the board of aldermen of the city of Roxbury granted permission to said company to open the streets of Roxbury and lay its pipes.

The Roxbury Gas Light Company, at the time of granting the permits appealed from and prior to the passage of said chapter 314, had its pipes laid and supplied gas to customers in the Roxbury district and in the city proper. In 1854 the board of aldermen of the city of Roxbury granted permission to the Roxbury company to open the streets and lay its pipes in that city.

In 1885, prior to the passage of said chapter 314, the board of aldermen of the city of Boston granted permission to the Bay State Gas Company to open the streets and lay its pipes in Boston.

At the time of granting the permits appealed from all said companies had their gas works and their pipes laid and supplied gas to customers within the territorial limits of the city of Boston. Prior to 1885 said pipes were laid without permits from the superintendent of streets of the city of Boston; since that time said pipes have been laid under permits issued by said superintendent.

The statement of the foregoing facts, with the several appeals, was submitted to the Attorney-General of the Commonwealth, who was requested to advise the Board whether under these facts sections 10 and 16 of chapter 314 of the Acts of 1885 applied to the appeals, so as to confer upon the Board authority to adjudicate upon the questions presented by them. The following is from the reply of the Attorney-General:—

“The only right of appeal to your Board conferred by sections 10 and 16 is from the decision of the mayor and aldermen of a city, or selectmen of a town, after a public hearing before them. There has been in this case no

action of the mayor and aldermen of Boston and the action appealed from is that of the superintendent of streets. If the powers of the mayor and aldermen in such cases have been transferred by the charter of Boston to the superintendent of streets, as has been claimed, it may be that his action will support an appeal; but this is, in my opinion, doubtful, and it is clear that, taking the statute as it reads, there has been no such action as to form the foundation of an appeal.

"But apart from this, it appears to me, upon the facts stated, that the Brookline company must be considered as existing in active operation in the city of Boston, in the sense of the statute, at the time of its application for and the granting of the permits appealed from. If this view is correct it disposes of the question, as the requirement of a public hearing with the right of appeal does not apply to such a company."

Acting upon this opinion, the Board ordered that all the appeals be dismissed.

APPEAL OF THE WORCESTER ELECTRIC LIGHT COMPANY.

An appeal from an order of the board of mayor and aldermen of the city of Worcester, granting permission to the Quinsigamond Electric Power and Light Company to erect poles and run wires for the purpose of supplying electric light within the limits of said city:—

As required by the statutes, a public hearing was given upon the appeal, and sessions of the Board for that purpose were held in the city of Worcester. The Quinsigamond Electric Power and Light Company and the Worcester Electric Light Company appeared by counsel, but neither the city nor any other parties were represented either to favor or oppose the appeal.

The Quinsigamond Electric Power and Light Company was organized on the twenty-fifth day of January, 1892, by three well-known citizens of Worcester, with a proposed capital of \$10,000. No portion of the capital had been paid in, but it was understood that if this appeal should be dismissed a plant which for some years had been used to supply electric power, and was owned by the same parties, would be transferred to the new corporation in lieu of a cash payment for stock. It appeared at the hearing that it was the purpose of the promoters of the enterprise to establish a plant upon the extreme eastern boundary of the city and about two miles from its centre, on the shore of Lake Quinsigamond, and from that point to supply lights throughout the city.

Since the year 1883 the city has been supplied with electric lights by the Worcester Electric Light Company. This corporation has established its station within a short distance of the principal mercantile and manufacturing section, and upon the shores of a pond of about five acres in extent. Its plant, which has been recently constructed, includes compound condensing engines of about 1,600 horse-power, and dynamos capable of supplying 820 high candle-power arc lights and about 4,000 incandescents. It was actually supplying 675 arc lights and 4,153 incandescents, and had about 135 miles of wire and 2,200 poles in the public streets at the time of the decision.

This appeal is made pursuant to the provisions of chapter 382 of the Acts of 1887, which requires the Board to hear all parties interested, and that its decision shall be final. From this it would seem to be the duty, as it has been the practice, of the Board to make such an appeal the subject of careful inquiry, as if it were a new case not previously heard elsewhere. This appears to have been expected by the aldermen, as from their records it would seem that but little time was given to the consideration of the application. It was apparently understood that, whatever their action, an appeal would be taken, and their course indicated that they believed the public interest demanded that their time and attention should be given to other pressing and perplexing questions, whose final settlement was wholly within their jurisdiction, rather than to this.

The parties interested in an application of this character are the general public, the consumers, and those who have invested or desire to invest their money. The number of companies which can conveniently engage in this business must be necessarily limited, owing to the nature of the work and the fact that its conduct involves an extensive use of the public streets for the poles and wires. These lines must necessarily be charged with dangerous currents of high intensity, and, in combination with wires for other purposes, are a constant menace to life and property wherever they exist. While above the highway they may offer serious obstruction to a successful contest with fires; and if underground they become, through necessity for the frequent opening of the streets,

a fruitful source of interference with travel. The sections where the greatest volume of trade and travel exist are sought first by all companies as the most profitable field for the business, with the result that wires become most numerous where they are the most likely to be troublesome and dangerous. Attempts to regulate or control the construction of these lines by official supervision have met with only limited success. There is a general public demand that such a use of the streets should be restricted, that the number of these wires should be kept at the minimum needed to properly supply the public needs, and that they should be multiplied only when some substantial advantage is to be acquired or the public convenience to be served thereby. For these reasons some probability should exist of either a saving of cost or an improvement of service to justify encumbering the streets with the poles and wires of another company.

In many respects the case under consideration differs from any which the Board has previously been called upon to consider.

At the hearings but few witnesses were introduced and but little evidence presented. The persons interested in the enterprise are respected residents of the city and are entitled to the most careful consideration. The capital mentioned in the charter is obviously too small to effect the purposes of the corporation, but it is assumed that it may be increased to any needed amount.

Some of the witnesses expressed the opinion that the city afforded a fair field for two companies, but no facts or arguments were submitted in support of this view. It did not appear that these persons had given the question much consideration or had any particular knowledge of the business itself. They probably intended to express their individual belief that there was sufficient undeveloped business to support a second company with a fair profit, or that it would receive public support because it could give the consumers some advantages not now within their reach.

This comes very near assuming the whole case, and it would seem that those who take this view should be prepared to submit some facts or arguments upon which the opinion may be based, but none were attempted. The specific testimony presented at

the hearing and the facts in the possession of the Board seem to oppose this view rather than to favor it.

There was no claim nor pretence made by the representatives of the new company that they would be able to supply lights for any less price or of any better quality than those of the existing company, or that in any particular respect the service would be improved. It did not appear that the present company had unreasonably failed or refused to supply any lights for which request had been made. The company, indeed, expressed its willingness and demonstrated its ability to supply both arc and incandescent lights to any extent that might be desired, wherever the nature of the business would permit and at reasonable rates. No criticism of its prices or its service was offered. In the year 1890, in refusing to allow the consolidation of this company with the Worcester Gas Company, the Board referred to its plant and policy in the following terms :—

Every advantage in construction known to the best engineering skill seems to have been employed, and all its appliances rank with the best. It has just completed and equipped with a plant a building of ample size for all probable needs of the city for some years to come. Its affairs have been managed with strict economy. Its policy has been conservative and free from speculative features

The evidence as presented to the Board seems to afford no reasonable ground for the expectation that the proposed company could afford its lights for less than the existing company. The location suggested would undoubtedly enable it to manufacture the electricity at as low cost, but its greater distance from the centre of consumption would increase the cost of distribution. It does not possess and probably does not expect to acquire the exclusive control of any invention by which special saving in cost may be effected, and it cannot reasonably be expected to possess any higher technical or business talent than lies within the reach of the existing company.

It is the duty of the Board and its only purpose to secure to the people of Worcester, so far as it lies within its power, the best service at the lowest reasonable price. There is some reason to believe that the admission of the proposed company might seriously impede, perhaps wholly defeat, this object. It must be recognized that both companies are to be promoted and to be conducted for

the sake of profit, and that they will be governed by the same laws as other companies in similar business. The capital account of the existing company is low, and the amount required for a fair dividend is less than in most companies of its size and character. It is important to the consumers that this condition should be maintained, as no single item contributes more to the cost of lights than a proper charge for dividends. The present company can add 10,000 or 20,000 lights to its present output, with a much smaller investment of new capital than could possibly be done by a new company. The history of corporations doing an electric lighting and similar business in competition in various parts of the country affords strong ground for believing that a new company, if allowed to engage in business, would not long remain by itself, as competition for a period would probably be followed, as elsewhere, by consolidation or absorption. Whether or not such union would be for the public good, the companies would see a gain thereby, and no power rests in this Board or elsewhere, under existing laws, which could effectually prevent some form of consolidation. If the advantages incident to the growth of population and the development of business are to be secured and retained for the benefit of consumers, every reasonable effort must be made to prevent unnecessary development of the capital chargeable upon the business. But combinations and consolidations, as is well known, afford the opportunity and usually a temptation to stock development too great to be resisted. Such needless outlay should be avoided and saved, for when it has once been incurred or the money expended in an enterprise not required to supply the public wants, so great is the expectation of gain, and so persistent and unyielding the demands of capital for dividends, the remedy is not then easily found or applied, and the better policy avoids the evil at the outset by preventing the expenditure.

It may properly be noted that in the early history of electric lighting in this city an illustration was afforded of the results of an attempt by two interests to supply the light. The principal promoter of the new company was then engaged in the supply of electric light upon a small scale, and the business itself was new. Very soon after the advent of the existing company, he found it

for his interest to enter into an arrangement with them. For a portion of his plant and the good will of his business, and an agreement not again to enter it for a term of years, he received the sum of \$20,000, by far the greater portion of which was not for the plant. Every dollar of this amount the consumers of electric light in Worcester have been compelled to refund in the shape of higher charges for their lights. Is it desirable or wise that this course should be repeated, with a much larger amount involved?

The principal promoters of the new company are the owners of a large tract of land upon the shores of Lake Quinsigamond and of another tract midway between the lake and centre of the city, well adapted and partly occupied for manufacturing purposes. In the sections of the city where these tracts are located there is probably little or no other demand for electric lights. Situated upon the lake shore are numerous private residences and pleasure grounds which attract great numbers of people during the summer months. There is some demand there for lights for about three months in the year, and although this service is special in its character and perhaps unprofitable, it appeared that all the lights requested had been supplied there and at regular rates. In either of these locations if sufficient lights were desired it is not unlikely that some advantage could be gained by the construction of separate plants to supply them. Such a plant already exists in one of them. As they could probably be constructed and maintained in either place without crossing the highway, the permission of the mayor and aldermen for them would not be necessary, and they would not be affected by the decision in this case.

No request was made for a franchise limited or restricted in any way. It was particularly stated that such was not desired and would not be accepted. The grant from the aldermen contains no restrictions or limitations whatever. No authority exists in this Board to modify or in any way restrict the order upon which the appeal is based, but the appeal must be sustained or dismissed and the order affirmed or annulled without qualification.

If to sustain this appeal shall seem to secure to the existing company a monopoly of the business, it must be remembered that it can only retain this as long as the public interest is best served

thereby, and that such monopoly is conditional and restricted. The company claims and exercises a general franchise throughout the city. It may be compelled to meet all reasonable demands. If it unreasonably fails or neglects to supply light when requested, this Board has power to compel such supply and has frequently exercised this authority in other localities. Consumers have a right to the lowest remunerative rates, and if they believe the prices charged are too high they can petition for a reduction, and the order of the Board as to price is binding upon the company. While the interests of the shareholders, present or prospective, ought not to be overlooked, the convenience, comfort and pecuniary benefit to the community are surely of the first importance.

For the reasons suggested, the Board deemed it unwise to grant the Quinsigamond Electric Power and Light Company the prayer of its petition. It was therefore ordered that the appeal be sustained and that the permission of the aldermen be revoked and annulled.

BROOKLINE PETITIONS.

These were petitions by the selectmen of Brookline, and numerous consumers of the Brookline Gas Light Company, residing in Brookline and that part of Boston known as Brighton. Hearings were given at the office of the Board, and all the petitioners were represented by counsel. Few witnesses were presented by either side, and but little evidence offered, except such as was drawn from the public reports of the Board. It was understood, however, by all the parties, that in considering the application, the Board would make careful examination of the records and accounts of the company, and a thorough investigation of all its affairs. It appeared that the Brookline company began to supply gas in the town of Brookline in the year 1853. In 1854 it obtained an amendment of its charter allowing it to distribute gas in Brighton and in Boston, and some years later it began to lay its pipes in Brighton, and to supply gas to that town and its inhabitants. Portions of Brookline were annexed to Boston in 1870 and 1874, and the town of Brighton became Ward 25 of the city of Boston in 1873. The Brookline Gas Light Company has continued to

supply gas within the entire territory formerly known as Brookline and Brighton, and has been the only company supplying gas within these boundaries, up to the present time.

In 1887, under chapter 385 of the Acts of that year, the company was authorized to supply electric light in the town of Brookline, and in that part of Boston formerly included in Brookline and Brighton. It entered at once upon the supply of such light, and has continued to be the only company supplying electric light in that territory up to the present time. Since September 30, 1889, the price of gas supplied by the company to ordinary consumers has been \$1.90 per thousand feet. On the twenty-seventh day of February, 1893, the company entered into a contract with the city of Boston, by the terms of which it undertook to supply after July 1st, within certain sections of the city, gas for street lights at 70 cents, and to private consumers at \$1.00, and in the Brighton district at \$1.25 for street lights and \$1.50 to private consumers. At the same time, the company voted to supply gas to private consumers in Brookline at \$1.50. Shortly after the terms of that contract were made public, the petitions of the selectmen and of consumers in Brighton were filed with this Board.

The works of the company have, for many years, been located near the eastern boundary of the thickly settled portion of the town of Brookline. Early in 1891 work was begun upon the erection of entirely new works at the north-eastern portion of what was formerly Brighton, on the Charles River, and about three miles from the former location. The works were completed and the manufacture of gas begun at the new location in April, 1892. The old works at Brookline have been dismantled and abandoned, and it is understood the company does not intend to again use them for gas purposes.

The electric lighting plant located at the old station has also been sold or removed, and a new plant for that purpose erected at the new gas works.

The petitioners urge that they should have gas at not more than \$1.00 per thousand feet, and base their claim to this upon the ground that the discrimination against them in the lower price made for Boston was both illegal and unjust; and, further, that

the price named in the Boston contract being a voluntary act of the officers of the company, was ample and conclusive evidence of its ability to supply gas at that rate, with a fair profit. Different rates by the same public corporation for a similar service always causes discontent among those least favored. The lines of demarkation are of necessity drawn arbitrarily rather than by any rule capable of logical demonstration and the grounds relied upon for their justification generally yield under the test of close examination. But little effort was made by the company to justify the discrimination in this case, except by an intimation that it was fairly based upon a difference in cost of distribution caused by the difference in density of the gas-consuming population. It is very doubtful if any such difference in cost could be shown to exist, and if any did appear, it would probably be found too small to have any appreciable effect upon the selling price of the gas. It would be a theoretical difference rather than a practical one. Certainly the difference in this case is too great to be justified upon such grounds, since it is more than three times the entire cost for distribution. A distinction of this character between customers has been generally regarded as contrary to a sound public policy and has never been employed except as a temporary expedient.

But while such discrimination may appear to be unjust, it is by no means clear that it is illegal, and it is not every case of discrimination that either this Board or the courts can interfere to prevent or adjust. A few years ago the Consolidated Gas Company of Baltimore undertook to supply the same quality of gas to consumers in one section at 50 cents per thousand feet, and in another at \$1.00. Upwards of seven thousand consumers united in an appeal to the courts to compel the company to supply them at the lower price, upon the same grounds as urged in this case. It appeared at the trial, that gas was being sold at the lower price at a loss, and that the higher price was not unreasonable. The court said that it had not the power, therefore, to require a sale at the lower price, and dismissed the petition.

There is no law to prohibit a company from selling gas at less than cost, or, perhaps, from giving it away, if it considers such course desirable, and no power lies with this Board to increase the

price unless upon application of the company itself. Whether the Board can prevent this discrimination depends upon whether it has the power to reduce the price in the territory named to \$1.00 per thousand feet, — whether, in fact, the Brookline company can supply gas at \$1.00 per thousand feet, and pay a fair dividend upon the capital necessary for the business. Unless it can do this, no power exists, either in this Board or elsewhere, to compel it to supply it at that price. In the recent contest between the city of Cleveland and the Cleveland Gas Light and Coke Company, in the United States Court, it was held that when regulation makes the price so low as to make it impossible to pay a reasonable dividend it was but another name for confiscation, and a violation of the Constitution of the United States.

The Board cannot assume, merely because the company offers to supply gas under existing conditions in Boston at \$1.00 per thousand, that it can fairly afford to supply it at that price, either there or elsewhere. It would be as reasonable to assume that it could not afford to supply in Brighton at less than \$1.50, since that is the price named in the contract for that district. It is well understood that in the management of corporate enterprises at the present day, profits are often made by parties interested, in other ways than directly from the sale of their products in the open market. All the evidence in the possession of the Board tends to show that until the conditions shall be greatly changed the company cannot be legally required to supply gas in any portion of its territory for \$1.00 per thousand feet. All its accounts show that this price is less than cost, and would provide nothing for either interest or dividends.

The Board has considered its duty to be to ascertain, without reference to any of the prices named in the contract, at what price the company might fairly be required to supply gas within the territory of the petitioners. It was contended that this district should not be chargeable with the capital invested in the prosecution of the recent Boston contract, the electric light business of the company or in the property formerly used for the gas business, but now abandoned. This seemed to the Board to be a fair position and in harmony with its previous policy.

If the company sees fit to carry, for any length of time, real estate not suitable for the business of supplying gas, and which it never intends or expects to use for such business, it would seem fair that the burden of such ownership should be borne by the property itself, and not by the consumers of gas. It may well be claimed that the company is under obligation to its consumers, having disposed of such property, to apply the proceeds to a reduction of its capital. There seems to be no good reason why the surplus profits of the gas business should be used to support the electrical enterprise, or that gas consumers should, in any way, be asked to bear the burdens properly belonging to those who desire the luxury of the electric light.

It was admitted that the success of the supply of gas in Boston by this company was problematical, and that this feature of its business was purely speculative and its results uncertain. No pretence has ever been made that it would be profitable unless the company should succeed in so far dividing the business of this territory with the Boston company as to secure a consumption many times larger than its present output. The only fair inference to be drawn from the position of the company in this contract in respect to price is simply that the shareholders or a majority of them are willing to enter upon an experiment which they expect will, in some way that may not appear upon the face of the transaction, perhaps indirectly, become profitable to them.

Prior to entering upon the expenditure necessary under the Boston contract, the bond and share capital of the company was \$1,000,000. Deducting from this the investment in the electric business, and in the property abandoned, the capital employed is still high relative to the company's output; very much higher, indeed, than in the case of any other company within the Commonwealth with which it may fairly and properly be compared; higher with one or two exceptions, than any other dividend-paying company. The time available for the examination of this case has not been sufficient for such a study of the history and affairs of the company as will enable the Board to determine definitely how this condition has been reached. Apparently the company has been burdened through a considerable portion of its history by a lack of economy

in its management, since the prices charged for gas in the past seem to have been sufficient to provide a liberal profit. Several years ago the company acquired a portion of the land upon which their new works have been built and for a long time apparently it had been the intention to erect new works in that location; but when the time arrived for their construction, there were no funds whatever available for the purpose, and it was necessary to provide the entire cost out of new capital.

In view of these facts the company does not expect to pay and would not claim to be entitled to pay as large a dividend as those companies which have pursued a different and more conservative course with respect to development of their capital. Consumers have a right to claim that management shall be no less efficient and no more costly, and that the charges for improvements and profits shall be no larger in this company than in others that are similar and successful. Gas in the holder costs in this case but little if any more than in the best managed companies similarly situated in the State. It is doubtful whether this item can be appreciably reduced by the new apparatus now building at the company's works although the candle-power may be thereby increased. In other departments of the company's work the same closeness of expenditure and supervision does not seem to exist. The cost of leakage and for management is high, and in the interest of the corporation and of the consumers may well be reduced.

The price suggested is based upon these considerations, and in view of the entire history of the company seems fair and just to all concerned. The Board confidently believes that with the proper improvement possible in respect to management and leakage, and with the entire cost of the gas thereby reduced to the lowest point which can reasonably be demanded of the company, it will be able to earn a fair, though moderate dividend upon the capital actually invested for the supply of gas in Brookline and Brighton. The Board recommended that from and after the first day of October next the net price for gas supplied by the Brookline company should not exceed \$1.40 per thousand feet.

On August 3, notice of this recommendation was sent to the company, by whom it was adopted on August 12.

CHELSEA PETITION.

This was a petition by the mayor of Chelsea and numerous consumers of the Chelsea Gas Light Company for an improvement in quality and a reduction in the price of gas to \$1.50 and in the price of electric light.

Public hearings were given to the parties interested, in the city hall in Chelsea. The petitioners and the company were represented by counsel.

After this petition was filed with the Board, but before the hearing was ordered, the company voted to reduce the price of incandescent electric light to one cent per lamp hour, and this price went into effect on the first day of July last. At the hearing the petitioners expressed themselves as generally satisfied with this, and waived their request for any further reduction in that department of the company's business.

Very much of the evidence submitted related to the quality of the gas. From the reports of the State inspector it appeared that the candle-power had been invariably above that required by the statute, and that for more than a year the company had in only a single instance failed to comply with the provisions of law respecting impurities. There was, nevertheless, much complaint of poor light, which seemed to be well founded. The testimony showed, however, that this did not exist through the city generally, but was confined to a limited area upon both sides of the mercantile portion of Broadway. The trouble was evidently a local one; a complaint of poor light rather than of poor gas. Early in the hearing the Board became satisfied that this was due to a lack of pressure in certain mains, the capacity of which was not sufficient for the territory which they were intended to supply. The company recognized this fact and before the hearing closed purchased for this section additional pipe, which has since been laid and is now in use. This new main is believed to be fully equal to all the demand likely to be made upon it. If the consumers within the territory referred to shall now fail to secure sufficient gas it will probably be found that the trouble is caused by defective piping or fixtures upon their own premises.

In considering the request for a reduction in price of gas it was necessary to note that in answer to a former petition against this company the Board in 1891 fixed the price at \$1.80, and that this price went into effect July 1 of that year. The report accompanying the decision showed that this price was made after an exhaustive examination of the entire history and affairs of the company. The Board was then of the opinion that the cost for management and distribution, as well as the capital charge, might be reduced, and suggested to the company the necessity of improving its plant and the expediency of a temporary reduction in its rate of dividend. The price, in fact, was fixed at a point which was intended to compel the introduction of improvements in the works and economies in the management.

In this case the Board was asked to again examine the affairs of the company and determine whether, owing to new conditions or otherwise, another reduction might fairly be required. At the hearing the desire for this was strongly expressed, but very few facts or arguments were presented by the petitioners. The company protested, submitted its records and accounts, and urged that another reduction at this time would be neither reasonable nor just. The amount of output is a most important factor affecting the cost of gas to the company and the price to the consumer, and it seems neither fair nor just to demand the same prices for Chelsea as prevail where the output is from three to five times as great. It was urged by the petitioners that a lower price would secure a much larger output for the company. The same proposition was urged at the former hearing. As this is usually the rule, the Board seemed to be warranted in assuming that it would be the case in Chelsea, and this factor was influential in fixing the price after the former hearing. This expectation, however, has not been met in the case of this company. In the five years prior to July, 1893, the company had reduced the price of gas nearly twenty per cent., but the increase in output during the entire period was only two per cent. The last reduction went into effect on July 1, 1891, and the output for the year following was in fact less than for the preceding year. During the period named the profits steadily diminished, and for the year ending July 1, 1893, were about \$10,000 less than for

the year ending July 1, 1888. There is but one city in the State of similar size where the consumption of gas is so small, although in some of them the price is as high or higher. These facts are important and compel serious consideration. They afford strong ground for the company's position that the field which it occupies is governed by exceptional conditions. It is difficult for the Board to understand or account for this, and no attempt to explain it was made at the hearing. There was no criticism upon the attitude of the company toward its consumers, but the witnesses were agreed that it had been attentive to the complaints of its customers and courteous in its treatment of them.

In the performance of its duty to the petitioners, and in view of the earnestness of their request, the Board carefully examined the methods employed by the company. After a careful scrutiny of its accounts, it was satisfied that they correctly exhibited the company's transactions and condition. It was apparent that any reduction in the existing price could only be secured through some decrease in the cost of production or distribution of the gas. In the cost of distribution and management no extravagant expenditures for salaries or other items were included, and this department seems to be conducted in a legitimate and economical manner. There is no reason to believe that these items could be appreciably reduced by any change of management. The Board believed, however, that the cost of manufacture might be somewhat reduced by a closer and more intelligent attention to that portion of the business. It found that this had been increased by a percentage of leakage or lost gas, much greater, probably, than would be allowed under careful management. It was claimed by the company that much of this was due to the extraordinary interference with the company's pipes by the construction of sewers. If the loss be due to this fact, it is not likely to be repeated; and if it is due to lack of proper supervision, the burden of it should not be borne by the public. Included also in the cost of gas for the last year was a considerable sum for extraordinary repairs and improvements. No similar call is likely to occur in the immediate future. Some saving must, therefore, accrue from an improvement in these two features of the company's business, and this gain, although of necessity small, may properly accrue to the public.

The ratio of capital to output in the Chelsea company is much higher than in other companies of similar size in the State. This is largely attributable to the imprudent policy pursued by the company in former years in relation to the issuance of stock, as was pointed out in the report of this Board alluded to above. The over-capitalization resulting from this policy should not be permitted to operate as a medium of burdensome dividend charges; this may be obviated by a price which contemplates a low rate of dividend. The reduction proposed is based upon these considerations.

The Board recommended that on and after the first day of January, 1894, the price of gas supplied by the Chelsea Gas Light Company should not exceed \$1.65 per thousand feet.

PETITION OF CHELSEA GAS LIGHT COMPANY.

This was a petition by the Chelsea Gas Light Company filed Dec. 1, 1893, for a revision of the action of the Board by which, on Nov. 10, 1893, it recommended that the price of gas supplied on and after Jan. 1, 1894, to the consumers of that company should not exceed \$1.65 per thousand cubic feet.

This petition was presented to the Board under the provision of chapter 350 of the Acts of 1888, and, as therein required, a public hearing was given, at which all the parties to the original petition were represented. The company, by the introduction of certain new evidence not presented at the previous hearing, sought such modification of the vote referred to as would permit it to offer to its customers a discount for prompt payment of bills and to charge a net rate higher than that in the vote of the commission.

As the question of permitting the allowance of such a discount is important, it seemed proper that the Board should hear fully all the evidence and arguments on the subject which the parties interested desired to present for its consideration. After such a hearing, the Board decided to permit the Chelsea Gas Light Company to offer a discount for prompt payment of bills, for the reason that it seems that such a discount operates to diminish the expense of administration. Every substantial saving, particularly in the case of a company doing a moderate business, is appreciably felt

in the cost of production of its gas, and the Board feels that the consumers should have the advantage of every reasonable economy. In practice, almost all the consumers avail themselves of net rates, and the amounts collected from those who pay gross rates is proportionately very small.

The price fixed in the former vote assumed that there would be no diminution in the company's output and no demand for extraordinary expenditures for repairs at the works, upon which considerable sums have recently been expended; but it appeared at the hearing that the condition of the distributing plant was such that large sums must soon be spent for its improvement. The company's recent loss by fire at the works, which has occurred since the last hearing, will also entail an increased expense for repairs.

Further new evidence was introduced that, owing to the reduction of the business of large manufacturing establishments since the former hearing, there has been a substantial decrease in the company's output of gas, and it is possible that such a condition may continue. It seemed clear from this new evidence and the figures presented that such a price would entail a further reduction in the rate of dividends, which has already been reduced by the company to five per cent.

Upon careful consideration of all the evidence the Board has considered that under the present conditions some modification of its former order is necessary to enable the company to pursue its business for the best interests of the community in which it is placed, and it was voted that the net price of gas supplied on and after Jan. 1, 1894, shall not exceed \$1.70 per one thousand cubic feet, if paid on or before the twenty-fifth day of the month in which the bill is presented.

The price of gas has since been fixed by the company in compliance with this vote.

NORTH ANDOVER APPEAL.

This was an appeal of the Lawrence Gas Company from the decision of the selectmen of North Andover permitting the Merri-mac Valley Horse Railroad Company to erect and maintain poles

to operate its road by electricity and to maintain free of expense to the town incandescent lights on their poles for public lighting. This petition was filed Dec. 30, 1890. Neither party asked for a hearing, and Dec. 28, 1893, the chairman of the board of selectmen of North Andover informed the Board that no hearing would be required, as the decision of the selectmen had been withdrawn.

MALDEN AND MELROSE PETITION.

This was a petition of more than twenty consumers of the Malden and Melrose Gas Light Company for a reduction in the price of gas, filed Aug. 9, 1893. On the 25th of September the directors of the company reduced the price of gas to \$1.90 per thousand feet, allowing a discount of 30 cents per thousand feet from this price if payment is made within twenty days of date of bill. The counsel for the petitioners then withdrew their petition, and a communication, in which they stated that they considered this to be a fair and equitable reduction, was received by the Board.

MUNICIPAL OWNERSHIP.

Official reports relative to town action in the direction of the acquisition of gas or electric light plants to be owned by the town for municipal or commercial use have been received from all the towns and cities in the State whose population exceeds 1,500. These are 205 in number and it appears that in 181 of them the proposition has not been considered during the year. The towns of Lexington, Manchester, Middleborough and Stoneham and the cities of Cambridge, Lawrence, Medford and Newton have acted in reference to the question for the first time during the current year. On pages 38 and 39 is submitted a tabular statement which contains a summary of all action within the Commonwealth in relation to this subject up to the beginning of the year 1893.

Tubular Statement showing Action about Municipal Gas or Electric Plants to Jan. 1, 1893.

| | Votes favorable to Acceptance of the Municipal Ownership Act. | | | Votes against the Acceptance of the Municipal Ownership Act. | Remarks. |
|-----------------------|--|-----------------|-----------|---|---|
| Braintree, . . . | Aug. 25, 1891, | Oct. | 29, 1891, | - | Plant for electric street lighting only; started Oct. 15, 1892; cost to that date \$30,853. |
| Brockton, . . . | Dec. | - | - | - | Adverse committee report accepted in 1891. |
| Brookline, . . . | - | - | - | - | Under special act. Plant for electric street lighting only; started Jan. 2, 1889. |
| Chicopee, . . . | Nov. 30, 1891, | Dec. | 16, 1892, | - | Investigating committee appointed 1892. |
| Danvers, . . . | - | - | - | - | Adverse committee report accepted in 1891. |
| East Bridgewater, . . | - | - | - | - | Under special act. Plant for electric street lighting only; started Jan. 2, 1889. |
| Everett, . . . | March 1, 1892, | - | - | Jan. 26, 1892. | Investigating committee appointed 1892. |
| Fall River, . . . | - | - | - | - | Adverse committee report adopted Oct. 5, 1891. |
| Framingham, . . . | - | - | - | - | Investigating committee, 1891. |
| Haverhill, . . . | Dec. 8, 1892, | - | - | Dec. 30, 1891. | Investigating committees, 1891 and 1892. |
| Hingham, . . . | - | - | - | - | Adverse committee reports adopted Nov. 11, 1891, and March 16, 1892. |
| Hudson, . . . | July 1, 1891, | Sept. | 2, 1891, | - | Proposition for investigating committee lost Oct. 15, 1891. |
| Malden, . . . | - | - | - | - | Committee reported plan for electric plant in 1892. |
| Marblehead, . . . | June 22, 1891, | June | 15, 1892, | - | No action taken. |
| Melrose, . . . | June 8, 1891, | March 21, 1892, | - | - | Town refused to authorize bonds for a plant, March 28, 1892. |
| Methuen, . . . | - | - | - | - | Voted to pass over article in warrant, 1891. |
| Needham, . . . | March 7, 1892, | May | 31, 1892, | - | Investigating committee appointed in 1892. |
| New Bedford, . . . | - | - | - | - | Unfavorable committee report accepted Sept. 11, 1890 |

| | | | | | |
|---------------------|-----------------|-----------------|---|----------------|---|
| North Attleborough, | June 30, 1891, | April 16, 1892, | - | - | Favorable committee report tabled April 19, 1892. |
| Norwood, | June 18, 1891, | Aug. 20, 1891, | - | - | Plant for electric street lighting only; started Sept. 27, 1892. |
| Peabody, | Oct. 2, 1891, | March 7, 1892, | - | - | Investigating committee appointed, 1891. |
| Plymouth, | - | - | - | - | Committee appointed to report plan for electric plant in 1892; no report. |
| Reading, | - | - | - | - | No further action proposed. |
| Spencer, | - | - | - | Oct. 6, 1891, | Favorable vote in city council Dec. 27, 1892, but inoperative because mayor did not approve. |
| Springfield, | - | - | - | - | Schedule of gas and electric property filed by company. |
| Stoughton, | April 12, 1892, | June 16, 1892, | - | - | Schedule of gas and electric property filed by company which applied to the court to compel town to buy the same. |
| Wakefield, | July 9, 1891, | Aug. 15, 1892, | - | - | Distributing plant for electric street lighting only; built and use begun Dec. 18, 1892. Electricity bought from private company. |
| Wellesley, | March 7, 1892, | June 8, 1892, | - | - | Subject indefinitely postponed, March 4, 1893. |
| Weymouth, | - | - | - | July 13, 1892. | Investigating committee appointed 1892. |
| Whitman, | Dec. 30, 1891, | - | - | - | |
| Winchester, | - | - | - | - | |
| Woburn, | Dec. 31, 1892, | - | - | - | |

The town of *Braintree*, on Jan. 11, 1893, voted yes 223, no 27, that the electric lighting committee appointed June 2, 1891, make such additions to the electric lighting plant "as will enable it to furnish electricity for the town buildings and for commercial and domestic uses." It was also voted to issue bonds to an amount not exceeding \$16,600 for this purpose, bonds to run for fifteen years from date, with interest at five per cent. ; upon this the vote was, yes 134, no 14.

On March 13, 1893, it was voted to make this appropriation \$16,500, and the town treasurer was authorized to issue ten notes of the town instead of the bonds, as voted on January 11, these notes to be of the face value of \$1,650 each, and to run one, two, three, four, five, six, seven, eight, nine and ten years, respectively, bearing interest at the rate of not more than four per cent. per annum. The selectmen were instructed to raise by taxation each year the sum of \$1,650, together with a sum sufficient to pay the accrued interest on said notes remaining unpaid, until all said notes are liquidated. It was also voted to appropriate \$125 for the purpose of placing four more arc lamps or their equivalents in incandescents in such location as the selectmen may determine. Six arcs and eleven incandescents were located, 17,400 feet of wire run and 30 poles set, at an expense of \$666.32. The appropriation for maintenance and operation for the year ending Dec. 31, 1893, was \$5,000.

At a meeting on November 28 the selectmen were instructed to have the town hall wired for electric light and \$300 was appropriated therefor. At the same meeting it was voted "that the sum of \$1,300 and the receipts from electric lighting for the current year* be appropriated for the purpose of connecting houses and stores to the electric light system." The rate of taxation for the year was \$16.80. The above appropriations for the commercial extension, amounting to \$19,053.29, were intended to be in addition to the \$30,853.85 previously expended.

The cost of operation from Oct. 15, 1892, to June 30, 1893, according to the return, was \$2,266.10, this amount including no charges for interest or depreciation. The number of lights oper-

* \$1,253.29.

ated was 80 twelve hundred candle-power arc and 77 twenty-five candle-power incandescent. These lamps were run 14 days in October, an average of 5.86 hours per day, and from November 1 to June 30 an average of 22 days per month and 6.12 hours per night.

The plant for domestic and commercial purposes was not completed until October 31, but an arrangement was made so that about thirty customers were supplied from July 1. The new plant consists of two alternating current dynamos with a capacity of 600 and 1,200 lights, respectively; 43 transformers and 62 meters; one engine of 125 horse-power and one boiler of 140 horse-power; 23½ miles of wire are used. The total expenditure is given as \$19,950.54, including \$878.79 charged customers for expense of connecting them with the system and \$685.87 for materials not used. No rules and regulations have yet been printed. On January 1 the town was supplying seventy customers and had 1,500 sixteen-candle-power lamps connected; 62 of these are supplied by meter at the rate of six mills per sixteen-candle lamp hour. Eight customers pay from \$3.50 to \$5 per sixteen-candle-power lamp per year, according to contract. The receipts for commercial lights to December 31 were \$1,253.29.

In the city of *Brockton*, on Nov. 9, 1893, both branches of the city council by unanimous votes adopted the following:—

Resolved, That it is expedient for this city to exercise the authority conferred in section 1 of chapter 370 of the Acts of 1891, in relation to the construction, purchase, leasing or using and maintaining within its limits a plant for the manufacture and distribution of electricity, for furnishing light for municipal use and for the use of such of its inhabitants as may require and pay for the same.

This was approved by the mayor on November 13. A vote that it is expedient to exercise such authority passed both branches of the city council by unanimous vote in 1892. The question, "Is it expedient for this city to exercise the powers conferred in section 1 of chapter 370 of the Acts of 1891, entitled 'An Act to enable cities and towns to manufacture and distribute gas and electricity'?" was duly submitted to the voters at the annual municipal election in December and it appears from the records of such elec-

tion that upon this question there were 1,142 yes, 3,085 no, and 1,051 blank votes.

In the city of *Cambridge*, on April 11, 1893, a resolve "That it is expedient for the city of Cambridge to exercise the authority conferred in section 1 of chapter 370 of the Acts and Resolves of the year 1891, being 'An Act to enable cities and towns to manufacture and distribute gas and electricity,'" was referred to a joint special committee with instructions "to investigate the probable cost of electric lighting and report thereon." On November 21 the report of this committee was accepted, and, in accordance with its general tenor, the resolve was adopted in the common council by a vote of 18 to 0 and in the board of aldermen 10 to 0. It was approved by the mayor on November 23. In concluding its report the committee said: "If the question before the city council was for final action in the matter, we should feel it our duty to make yet more extended investigation at this time; but, as final action must be taken by the next city council, we do not deem it necessary." By an order adopted by both branches of the city council on December 26 and approved the following day, the mayor was authorized to request the Cambridge Electric Light Company and the Cambridge Gas Light Company, respectively, to file the schedules of their property and plant, as required by section 3, chapter 454, Acts of 1893.

In the board of aldermen of the city of *Chicopee*, on Nov. 22, 1893, an order was offered directing that the question of establishing an electric light plant by the city be submitted to the people at the ensuing municipal election, but the order failed of passage by a tie vote, one alderman and the mayor not voting. Both branches of the city council, in each of the years 1891 and 1892, had voted unanimously in favor of owning and maintaining an electric plant for municipal and commercial use.

At an adjourned session of the annual meeting of the town of *Danvers*, on April 27, 1893, upon further consideration of the report of the committee on commercial lighting, made in April, 1892, it was voted that no franchise to supply electricity be granted to the Danvers Electric Light Company or any other private electric light corporation, "but that the town would reserve to itself all

rights to furnish general electric light and power." The town then voted, 75 yes, 25 no, to appropriate \$11,000 for the enlargement of the present electric light plant for the purpose of commercial lighting. The effort to make this appropriation conditional upon "some assurance that nine hundred lights would be sold" and that "the annual rate per light should not be less than \$6.00," was defeated. The treasurer was authorized to issue twenty town notes of \$550 each, bearing interest at four per cent., and it was voted that "one of these notes be made due and payable next year and one each year thereafter until all are paid." The vote upon this proposition was 55 yes, 3 no. A committee of five was then authorized, in harmony with the foregoing votes, "to add to the present electric light plant for the purpose of street lighting and furnish light and power to any citizen on the line of the streets proposed and recommended by the committee at rates per light hereafter to be fixed, and that full authority to contract and bargain for said additional plant, to erect and place same and put in complete and full operation, keeping always within the appropriation voted by the town." The vote upon this was 54 yes, 0 no. In the report of the committee referred to it appears that such a plant as they had believed desirable would involve an expenditure of \$20,000, although one large enough to meet the present demand, might be installed for \$15,000. The committee recommended also that the cost of wiring buildings should be borne by the customer, that lights should be supplied by meter, except that in some cases, such as stores, lights might be sold by the month or year.

The appropriation made for the year ending Feb. 1, 1894, for maintenance and operation was \$3,250. The total cost of the plant up to Feb. 1, 1893, had been \$16,555.68. The operating expenses for the year ending with that date were \$3,553.61. No interest or depreciation charges are included in this sum. During the year 78 lights were run 267 hours, on an average of 5.58 hours per night; 199½ tons of coal, 4½ cords of wood, 22,500 carbons, are reported as used during the year. The rate of taxation for the current fiscal year of the town is \$16.60 per thousand. The plant consists of two Brush dynamos, with a capacity of 90 arc lights of 1,200 candle-power each; one 60 horse-power engine and

one 80 horse-power boiler. No additions have been made to the plant since the last report.

No definite action has been taken during the year in regard to installing a plant for commercial lighting. Estimates have been obtained as to cost, however, and a canvass of the town to determine, if possible, the number of lamps that may be taken is partially completed.

In the city of *Everett* both branches of the city government have adopted the following:—

Resolved, That it is expedient for the city of *Everett* to exercise the authority conferred in section 1 of chapter 370 of the Acts of the year 1891, entitled "An Act to enable cities and towns to manufacture and distribute gas and electricity."

The vote upon this in the common council Feb. 28, 1893, was yes 17, no 0; and in the board of aldermen on March 15, yes 5, no 1. It was approved by the mayor on March 18.

In the board of aldermen of the city of *Haverhill*, on Dec. 28, 1893, a vote that it is expedient for the city to exercise the authority conferred by section 1 of chapter 370 of the Acts of the year 1891 was adopted by 5 yes, 2 no, but was laid upon the table in the common council on December 30. This vote was in the same form as that passed unanimously by both branches in 1892.

In the town of *Hingham*, on March 13, 1893, it was voted, 305 yes, 21 no, "that it is expedient for the town to exercise the authority conferred by chapter 370, Acts of the year 1891." On July 26 the same vote was passed a second time, 114 yes, 43 no. Previous to the meeting of March 13 the committee appointed in 1892 reported in favor of the establishment of an electric light plant by the town and recommended the passage of the votes cited. A committee was appointed to construct a plant. The Weymouth Light and Power Company has pole lines in the town and supplies the town and private consumers with electric lights. Negotiations have been carried on by the committee and this company looking to the purchase of its poles, wires, fixtures, etc., within the town; these negotiations have not yet matured and no plant has yet been constructed.

In the city of *Lawrence*, by concurrent vote of both branches of the city council, a joint special committee was appointed "to inquire into the present system of electric lighting now in use in this and other cities of the Commonwealth with a view to ascertaining the cost of the same, also to inquire into the feasibility of establishing a municipal system of electric lighting, or to make such other recommendations as may be for the best interests of the city on the termination of the present contract." No report has been made by this committee.

In the town of *Lexington*, at the annual meeting on March 6, 1893, a committee was appointed to examine into the matter of a plant for municipal and commercial lighting and report with recommendations at the next annual town meeting.

In the town of *Manchester*, at the annual meeting in March, 1893, the subject-matter of a system of electric lighting for the town highways was referred to a committee to investigate and the sum of \$400 was appropriated for the use of the committee. No report has been made, but one is expected from the committee at the next annual town meeting.

The town of *Marblehead*, on April 3, 1893, appointed a committee to investigate respecting an electric light plant for municipal and commercial use. No report has been made by this committee.

Both branches of the city council of *Medford* have voted "that it is expedient that the city of Medford exercise the authority conferred upon cities by chapter 370 of the Acts of 1891 and under the limitations of said act construct, purchase, lease or establish and maintain within its limits one or more plants for the manufacture and distribution of gas or electricity for furnishing light for municipal use and for the use of such of its inhabitants as may require and pay for the same, as by said act provided." This was adopted by the common council April 10, 1893, by vote of 16 yes, 1 no; and in the board of aldermen April 11; 6 yes, 0 no. It was approved by the mayor April 15. The mayor was also requested on April 17, by concurrent vote of both branches of the city government, "to petition the General Court for authority and permission for the city of Medford to provide and maintain a plant or system for municipal lighting."

The town of *Middleborough*, at a special meeting on March 25, 1893, voted, yes 252, no 97, "that it is expedient for said town to exercise the authority granted by chapter 370 of the Acts of the year 1891." The lighting committee was instructed "to confer with the party offering the Middleborough gas and electric plant for sale and ascertain the price of said plant, its condition and such other facts as they may be able, and report to the town at the second meeting if the first meeting should vote that it is expedient to purchase the plant." This committee reported that the entire plant of the company could be purchased for \$63,000 and recommended that the town take it at that price. They also reported in favor of an additional expenditure upon the plant of about \$7,500. The recommendations contained in the report of this committee, submitted in print at a special meeting on October 28, were accepted and it was voted, — 601 yes, 116 no, — that it is "expedient for the town to purchase the property and plant of the Middleborough Gas and Electric Company for a sum not exceeding \$63,000." At the same meeting it was voted, 120 to 0, to appropriate \$75,000 for the purchase and equipment of this plant, and an issue of bonds was authorized for the sum of \$75,000, all of said bonds to be dated Nov. 1, 1893, and to be payable according to the following schedule: —

\$1,000 in one year from date.

1,100 in two years.

1,200 in three years.

1,300 in four years.

1,400 in five years.

1,500 in six years.

1,600 in seven years.

1,700 in eight years.

1,200 in nine years.

1,900 in ten years.

2,100 in eleven years.

2,200 in twelve years.

2,300 in thirteen years.

2,400 in fourteen years.

2,500 in fifteen years.

\$2,600 in sixteen years.

2,600 in seventeen years.

2,700 in eighteen years.

2,800 in nineteen years.

2,900 in twenty years.

3,000 in twenty-one years.

3,100 in twenty-two years.

3,200 in twenty-three years.

3,300 in twenty-four years.

3,400 in twenty-five years.

3,500 in twenty-six years.

3,600 in twenty-seven years.

3,700 in twenty-eight years.

3,900 in twenty-nine years.

5,300 in thirty years.

The first nine bonds, amounting to \$12,000, to be at a rate of interest not exceeding four and one-half per cent. per annum and the remaining bonds, amounting to \$63,000, at a rate not exceeding four per cent. per annum.

A committee was appointed to negotiate with the company and to make purchase of its plant and property for not more than \$63,000. Authority was also given the committee "to carry into effect the recommendations contained in the report of the special committee on lighting, at an expense not to exceed the amount appropriated for equipping said plant." The vote upon the proposition to issue bonds was 101 to nothing, and upon the question of appointing a committee to purchase, 106 to nothing.

At a special meeting held on December 9 it was voted "to adopt, in place of the schedule of bonds provided to be issued by the vote of October 28, in payment for the purchase of the property and plant of the Middleborough Gas and Electric Company, the following schedule of bonds, and that the town treasurer be empowered to issue bonds in accordance therewith to the amount of \$75,000, to be signed by him and countersigned by the selectmen, of such denominations as they approve, bearing date Nov. 1, 1893, with interest payable semi-annually on the first days of May and November, all said bonds to bear interest at the rate of four per cent. : " \$1,000 to be due on November 1 in each of the years 1894, 1895, 1896, 1897, 1898 ; \$1,500 in each of the years 1899, 1900, 1901, 1902, 1903 ; \$2,000 in each of the years 1904, 1905, 1906, 1907, 1908 ; \$3,000 in each of the years 1909, 1910, 1911, 1912, 1913 ; \$3,500 in each of the years 1914, 1915, 1916, 1917, 1918 ; \$4,000 in each of the years 1919, 1920, 1921, 1922, 1923. Upon this the vote was : yes 12, no 0. It was also voted "that, for the purpose of extinguishing the municipal lighting bonds as they mature, the town hereby establishes a sinking fund, to which it will contribute the following sums each year, viz. : \$1,000 each year from 1894 to 1898, inclusive ; \$1,500 each year from 1899 to 1903, inclusive ; \$2,000 each year from 1904 to 1908, inclusive ; \$3,000 each year from 1909 to 1913, inclusive ; \$3,500 each year from 1914 to 1918, inclusive ; \$4,000 each year from 1919 to 1923, inclusive ; the same to be paid from the income of the lighting department if sufficient, otherwise from the town taxes, and that provision for the payment of interest and the contributions to sinking funds shall be included in each annual assessment of taxes." On this the vote was : yes 14, no 0.

The committee appointed October 28 completed the purchase of the plant for the price named on December 15, and bonds have been issued to the amount of \$70,000. The work of putting the plant in the condition recommended by the original committee is in progress. The tax rate for the fiscal year ending Dec. 31, 1893, was \$15.50 per thousand.

In the town of *Needham*, on March 20, 1893, the selectmen were instructed to "contract with some company to light the streets with electricity, town to own poles and wires, expense not to exceed \$3,000 per year." On June 23 the selectmen made a verbal report and it was voted to adopt an incandescent system for street lighting. The sum of \$10,000 was appropriated, to be expended under the direction of the selectmen "for the purpose of constructing and establishing a plant for the distribution of electric light in the town." It was also voted to raise this money by an issue of bonds to the full amount, to be dated Sept. 1, 1893, bearing interest at four per cent. per annum, payable in thirty years and in denominations of \$1,000 or \$500, at the discretion of the selectmen. The town treasurer was also authorized to borrow money needed in anticipation of the issue of bonds, and commissioners of sinking fund were chosen. At a meeting on Sept. 15, \$3,500 additional was appropriated for the construction of the plant. Bonds to this amount were authorized, of the same date and tenor and to be issued in the same manner as those authorized at the former meeting. At this meeting the sum of \$300 was directed to be paid to the selectmen as "compensation in full for their extra services in the construction of a plant, the same to be charged to construction account, and the selectmen were authorized to further extend the electric lighting system. It was also voted that "the selectmen be authorized to grant the Eliot Falls Electric Light Company the right to supply the inhabitants of Needham with electric light for domestic and commercial purposes upon such terms and conditions as they shall determine, and that any income received by the town therefrom be applied to the running expenses of the electric lighting plant."

In accordance with the votes of the town, a distributing plant has been constructed, consisting of about 37 miles of wire, extend-

ing over 20 miles of streets; 490 new poles have been used and 359 fire-alarm telegraph and telephone poles used; 300 twenty-five candle-power incandescent lamps are in use; \$14,095.65 have been expended for construction. The bonds authorized have not yet been issued, the money having been provided by temporary loans. A contract for a term of five years has been made with the Eliot Falls Electric Light Company to supply the electricity for the lights upon a moonlight schedule until 12.30 A.M. for \$1,870 per year for 240 lights and \$6 per year for every additional light. For this sum the company is to do all repairs and renew the lamps, the town furnishing the materials and the new lamps. The lights have been in use since November 6. The tax rate in the town for the last year was \$14.60 per thousand.

The city council of *Newton*, by an order approved Oct. 12, 1893, voted "that, in view of the expiration of the street lighting contract, the committee on fuel and street lighting is hereby requested and authorized to consider and report, with recommendations, at its earliest convenience, in print, upon the matter of establishing a plant for gas and electric lighting, to be owned and operated by the city." By an order approved Nov. 14, the council requested the mayor to petition the General Court for authority to "establish, maintain and operate an electric light plant for lighting the streets, ways, parks, places and buildings of the city." The committee referred to in the order of Oct. 12 reported Nov. 27, recommending immediate action whereby the city might avail itself of all the privileges contained in chapter 370 of the Acts of 1891 and all amendatory acts. On the same date this report was accepted and it was unanimously voted by both branches of the city council "that the city council of the city of *Newton* do hereby determine and adjudicate that it is expedient for the city of *Newton* to exercise the authority conferred by chapter 370 of the Acts of the year 1891, entitled 'An Act to enable cities and towns to manufacture and distribute gas and electricity,' and all acts in amendment or in addition thereto." This was approved by the mayor on December 4.

In the town of *North Attleborough*, at a meeting on March 25, a committee of three was appointed with authority to construct an

electric light plant, "at an expense not to exceed \$50,000, to include the cost of the whole plant now in town." The sum of \$50,000 was appropriated for the purpose and the treasurer was authorized to borrow this amount. On April 22 the treasurer was authorized to issue bonds for \$50,000, to be known as the North Attleborough electric light loan, these bonds to run for thirty years, at four per cent. The North Attleborough Steam and Electric Company filed a schedule of its property, as provided by law, but the town plant is nearly completed and none of the plant of the private corporation has been used or bought.

From the return of the town of *Peabody* it appears that the total cost of plant to June 30, 1893, had been \$48,238.42. The appropriations made during the year for maintenance and operation were \$8,300 and for the sinking fund \$800. The total operating expenses for the year ending June 30 were reported as \$5,725.35; no interest or depreciation charges are included in this amount.

A description of the plant for street lighting is contained in the report of this Board for 1893. In September, 1892, the lights were run four days and from October 1 to June 30, 238 days, a total of 2,415 $\frac{3}{4}$ hours. In September, 1892, 136 lamps were in use; in October, 142; in November and December, 148; for the succeeding six months, 149, all of nominal 1,200 candle-power.

At an adjournment of the annual meeting on March 30, 1893, a committee was appointed to investigate and report on the subject of commercial lighting. At a meeting on June 13, in accordance with the recommendation of this committee, the town voted, — 105 yes, 1 no, — to "install an incandescent machine and apparatus in connection with the present plant, to consist of one 1,000-light alternating machine, with all necessary station apparatus, also for suitable meters and transformers," and for wires to extend through certain of the principal streets of the town. For this purpose \$5,500 was appropriated. In the report of the committee it was stated that it had "cost the town the last year to light the town-house, central engine house and pumping station \$841, besides the allowance for lighting the other engine houses." It was then voted to "wire the town hall, the pumping station and engine houses, except hose 5, and to furnish necessary and suitable lamps

and other apparatus therefor." For this \$1,200 was appropriated. It was further voted "that the town furnish wire to carry the current to the consumer, as the gas companies furnish pipes for gas, but that the consumer be required to furnish lamps and house wire." It was then voted that for the increased expense for running the plant, as enlarged for the balance of the municipal year, \$800 be appropriated. The \$8,300 above mentioned includes this sum.

To carry out the recommendations presented, a committee was appointed and notes of the town for \$6,700 were authorized, payable, \$1,000 per year for six years and the balance in seven years from date, the money for these notes to be included in the tax levy for each year. In accordance with this vote a plant has been secured and installed. It includes one Westinghouse alternating-current 1,200-light dynamo, about 14 miles of wire and 21 transformers. Fourteen meters are in use, two of these being in the town house and the central engine house. The town began to supply commercial lights on November 10. At the close of the calendar year it had installed about 800 sixteen-candle-power lights; about half of these were town lights; there were seventeen private consumers. The rates at which these lights are supplied will be found in the rules and regulations adopted by the selectmen, which are contained in an appendix to this report.

In the town of *Reading*, at the annual meeting on March 6, under an article "to see what action the town will take with regard to obtaining a plant for the manufacture and distribution of electricity for furnishing light for municipal use and for the use of its inhabitants, and how much money they will raise and appropriate for that purpose or what they will do in relation thereto," and an article "to see if the town will take any action for the purpose of securing control, by purchase or otherwise, of that part of the property of the Citizens' Gas Light Company of Reading, South Reading and Stoneham which is located within the limits of the town of Reading and supplying the town or its inhabitants with gas for municipal and commercial use," the subject-matter of both articles was referred to a committee to report at a future meeting. This committee has not yet reported. The committee

appointed in 1892 have submitted a printed report covering the points mentioned, but without specific recommendations. No action has been taken on this report.

In the city of *Springfield*, on January 23, 1893, the committee on lighting streets were instructed to investigate and report upon the expediency and advisability of the establishment of a municipal lighting plant. On December 26 the report of this committee was accepted, in which they stated as their opinion "that under the statutes, as they stand at present in this Commonwealth, it would not be expedient nor profitable for this city to engage in municipal lighting on its own account."

In the town of *Stoneham*, at a special meeting on December 5, the warrant included an article "to see if the town will vote to accept the provisions of section 1, chapter 370, of the Acts of 1891, entitled 'An Act to enable cities and towns to manufacture and distribute gas and electricity.'" When this article was taken up it was voted that the subject-matter be inserted in the warrant for the annual meeting to be held in March, 1894.

In the town of *Stoughton*, on May 16, 1893, a committee was appointed "to take legal counsel as to certain points connected with the 'establishment of the plant for gas and electricity' and to report at a future meeting to be held in three weeks." This committee reported accordingly that they had been advised to the effect that the votes passed in 1892, contained in the last report of this Board, constituted a decision to establish a gas and electric plant for municipal and commercial uses; that the town was bound before establishing a "public plant" to purchase the plant of the Stoughton Gas and Electric Company, since said corporation had elected to sell the same and had filed the notice of such election, as the statute required; that since the town and company had been unable to agree upon the price to be paid and by reason of the fact that neither the company nor the town had applied to the court to determine the terms of the sale and the purchase, the company had lost its right to compel the town to buy, and the town had lost its right to proceed to establish such plant and could only exercise the same by commencing *de novo* and again passing the votes required under the statute. At a special meeting

on June 29 the town voted — 51 yes to 17 no — “ that it is expedient for the town to exercise the authority conferred under section 1, chapter 370, of the Acts of 1891, to establish and maintain one or more plants for the manufacture and distribution of electricity or gas for furnishing light for municipal use and for the use of such of its inhabitants as may require and pay for the same, as is provided in said act.”

In the town of *Winchester* the following article was inserted in the warrant for the meeting of March 6, 1893: “ To see if the town will accept of the provisions of chapter 370 of the Acts of the year 1891, entitled ‘ An Act to enable cities and towns to manufacture and distribute electricity,’ and to pass any votes in connection therewith which may be deemed expedient.” Under this article it was voted — yes 188, no 8 — to accept the provisions of the act. At a meeting held June 15 the same article was inserted in the warrant, stating it to be for the second vote. This meeting adjourned to June 22, when the vote upon accepting the act was: yes 37, no 0. The electric light committee were instructed to make further investigations and report at a future meeting. This committee has not yet reported.

In the city of *Woburn*, on Nov. 14, 1893, both branches of the city council adopted unanimously the following: —

Be it resolved, That the city of *Woburn* exercise the authority conferred in chapter 370, Statutes of 1891, relative to establishing a municipal lighting plant.

This was approved by the mayor on November 15. No proposition was introduced into the city council looking to a submission of these votes for ratification at the annual municipal election. No schedule of its property has been demanded of either of the companies supplying light in the city, nor any filed by either, as the statute allows.

At the annual meeting of the town of *Wellesley*, held on March 6, 1893, the electric light committee appointed in 1892 submitted its report, from which it appeared that \$13,345.29 had been expended for the construction of the plant and that about \$500 more would be needed for its completion; that the contract had been concluded with the Eliot Falls Electric Light Company of Natick,

under which that company had agreed to furnish the current for \$6 per lamp per year, the contract to run for two years with the option in the town to renew the same for two years more at the same price. This committee was continued and the matter of the extension of the electric lights was referred to it with instructions to report at some future meeting as to the best methods to be pursued. At a special meeting on October 23, under an article "to see if the town will authorize the selectmen to grant the Eliot Falls Electric Company the right to use the town poles and supply the citizens with electric light for domestic and commercial purposes upon such terms and conditions as the selectmen shall determine, and to do and act anything respecting the same," it was voted "that the selectmen be instructed to apply to the next Legislature for an act under which the town of Wellesley may safely contract with an electric light company to furnish electric light for domestic and commercial lighting in said town for a term of years."

A description of the town plant was included in the last report of this Board. The appropriations during the year ending June 30, 1893, for maintenance and operation were \$3,500. The cost of running the plant, including amount paid for current, as appears by the return of the town, was \$3,604.40. No additions or alterations appear to have been made in the plant during the year. Three hundred and seventy-five 25 candle-power lights have been in use. These were first lighted on Dec. 13, 1892, and to June 30, 1893, had been run 160 days and a total of 933 hours. The tax rate in the town for the year ending Dec. 31, 1893, was \$11.00 per thousand.

VIOLATIONS OF LAW.

Notices have been sent to the Attorney-General, as required by the statutes, of violations of law in the following cases:—

By the Brookline Gas Light Company, a violation of section 4 of chapter 104 of the Acts of 1854, and of section 75 of chapter 106 of the Public Statutes, in proceeding to dig up the ground in the streets, lanes and highways of the city of Boston, for the purpose of laying gas pipes therein, without obtaining the consent in writing of the board of aldermen of said city.

The following, from the communication of the Board to the Attorney-General, will explain the facts and the law in this case, as found by the Board:—

“The Brookline Gas Light Company was incorporated by special act of the Legislature, being chapter 17 of the Acts of the year 1853. By the terms of that act the powers of the company were confined to the town of Brookline exclusively. By chapter 104 of the acts of 1854, in section 4, it is provided, referring to the Brookline Gas Light Company, that ‘Said corporation, with the consent of the mayor and aldermen of the cities of Boston and Roxbury, respectively, shall have power and authority to open the ground in any part of the streets, lanes and highways in said cities for the purpose of sinking and repairing such pipes and conductors as it may be necessary to sink for the purpose aforesaid.’ By the phrase ‘purpose aforesaid’ reference seems to be made to the provisions in section 2, which declares that ‘Said corporations are hereby authorized to extend their pipes within the limits . . . of the cities of Boston and Roxbury and to sell gas on the line of such extension.’ It is further stated in said section 4 that—

“The said company, after opening the ground in said streets, lanes and highways, shall be held to put the same again in repair under the penalty of being prosecuted as a nuisance: *Provided, further*, That said mayor and aldermen for the time being shall at all times have the power to regulate, restrict and control the acts and doings of said company which may in any manner affect the health, safety or the convenience of the inhabitants of said cities.

“By section 75 of chapter 106 of the Public Statutes it is provided that—

“Gaslight companies may, with the consent in writing of the mayor and aldermen of a city, dig up and open the grounds in any of the streets, lanes and highways thereof *so far as is necessary to accomplish the objects of the corporation*. They shall put all such streets, lanes and highways which are opened into as good repair as they were when opened, and upon failure so to do within a reasonable time shall be deemed guilty of a nuisance.

“By section 77 of the same chapter it is further provided that—

“The mayor and aldermen of a place in which pipes or conductors of such a corporation are sunk may regulate, restrict and control all acts and doings of such corporation which may in any manner affect the health, safety, convenience or property of the inhabitants of such place.

“By section 3 of the same chapter it is provided that —

“All corporations established by special charters subsequently to the twenty-third day of February in the year eighteen hundred and thirty for the purpose of carrying on any kind of a manufacture shall be governed by the provisions and be subject to the liabilities prescribed in this chapter.

“It appears that no consent in writing or other formal consent has been obtained by the Brookline Gas Light Company from the board of aldermen of the city of Boston at any time, or that any application has ever been made for such consent. The Brookline Gas Light Company, however, has laid and is proceeding to open and dig up the streets for the purpose of laying a large extent of pipes within the limits of the city of Boston. We understand that said company is pursuing this course under a claim that they have received permits therefor from the superintendent of streets of the city of Boston, and that such permits are issued under the ordinances and regulations of said city; and it therefore becomes necessary to examine said ordinances and regulations, for the purpose of ascertaining whether the same are sufficient to support the claim of the company; and whether, in fact or in law, the permits of the superintendent of streets issued under said ordinances and regulations are such a consent of the board of aldermen as the statute requires.

“At a conference with the Board of the parties interested, it appeared that the company claimed to have received its permits under section 8 of chapter 36 of the Revised Ordinances of 1892 of the city of Boston. This section provides that ‘Said superintendent’ — referring to the superintendent of streets — ‘may issue permits to persons having authority in the premises to open, occupy, obstruct and use portions of the streets, and every such permit shall specify the time, place,’ etc. It is further provided in said section as to the conditions which shall be inserted in this permit. The regulation referred to and under which the claim was made is that contained in chapter 5, relative to streets and their uses, of the Revised Ordinances of 1892 of the board of aldermen of the city of Boston. Section 1 of this chapter provides that —

“The superintendent of streets may issue permits for opening, occupying, obstructing and using portions of the public streets and for other purposes

in the manner and on the terms, specifications and conditions and for the purpose *stated in the ordinance* of the city, subject, however, to any permission, control, regulation, obstruction or revocation which the board of aldermen may make.

“Section 8, it will be observed, is general in its character, and must be subject in its construction to other sections of the same chapter wherever they fairly or necessarily apply thereto. It appears to us that whatever permits the superintendent of streets may issue under the ordinances of the city with respect to gas pipes must be issued, not under section 8 referred to above, but under section 14 of the same chapter, which provides that —

“Said superintendent shall, *when authorized thereto by an order of the board of aldermen*, issue permits to open and occupy portions of the streets for the purpose of laying, maintaining and using wires, railway tracks or rails therein, or wires, *pipes or conduits* under the surface thereof, on a condition the terms of which shall be those stated in section 8 of this chapter.

“Attention is called to the words ‘persons having authority in the premises’ in section 8, and to the words ‘when authorized thereto by an order of the board of aldermen’ in section 14. It would appear clearly that some authorization or order under one or the other of these sections in favor of the persons having rights in the premises was a condition precedent to the issuance by the superintendent of streets of the permits contemplated by these sections; but it is not pretended that any action has been taken or any order passed by the board of aldermen authorizing the issuance of permits from the superintendent of streets to the Brookline Gas Company for the carrying on of the purposes of its incorporation. For these reasons it appears to the Board that the permits referred to above as issued to the company by the superintendent of streets are not issued in the manner required by the ordinances; neither are they with the consent in writing of the board of aldermen which the statute requires. It seems to us to be clear from section 14, referred to, that the aldermen did not intend to allow streets to be opened and dug up for the purpose of laying new pipes or conduits for gas unless they took some formal action and passed some clear order respecting the same. It was claimed, however, that under the revision of the charter of the city of Boston, made by the Legislature in 1885, the consent required by the statutes

above referred to has been taken from the board of aldermen of Boston ; and it therefore becomes necessary to examine the statute under which this claim is made.

“ By section 6 of chapter 266 of the Acts of 1885, being ‘ An Act to amend the charter of the city of Boston,’ it is provided that —

“ The executive powers now vested in the board of aldermen as such, as surveyors of the highways, etc., or otherwise, shall be and hereby are vested in the mayor, to be exercised through the several officers and boards of the city in their respective departments under his general supervision and control.

“ This section proceeds to more specifically illustrate and describe the executive powers referred to, and it is made the duty of these officers, under the direction of the mayor, to make contracts for labor and materials in the construction and repair of all public works, to have the entire care, custody and management of the same, and of the city’s property, and the direction and control of the executive and administrative business of the city. And the mayor is charged with securing ‘ the honest, efficient and economical conduct of the entire executive and administrative business of the city.’

“ It will be observed that this statute transfers to the mayor only the executive powers of the board of aldermen. From the footnote on page 197 of the Revised Ordinances of 1885 (which note we understand is by the editor and compiler of the ordinance, and is a foot-note to the ordinance respecting the power of the superintendent of streets in reference to permits for opening the streets) it is recognized expressly that the general powers of the board of aldermen are not disturbed by the act of 1885, and that the ordinary judicial or legislative powers it formerly had remained vested in the board of aldermen subsequent to the enactment of that statute. In the opinion of the Board, the determination of the question as to whether the streets generally shall be dug up for the purposes of a gas corporation, such a consent as the statute requires is not an executive power, but one which is judicial in its character. Certainly the whole history of the exercise of this power has tended to the support of this proposition. It has been regarded as a broad and general question of public policy, and in many cases long and extended hearings have been held, with the testimony of many

witnesses, and the question to be determined has been whether the general public interest required that a company should receive the general admission to its streets such as the law contemplates. It will be observed that, under chapter 106, section 75, when this consent in writing is given it extends 'so far as is necessary to accomplish the objects of the corporation.' The question as to what is the full force and effect of this consent has not been specifically determined, as we understand it, in the courts of this Commonwealth, but similar language has received the construction of the courts in other States, and it has been held that after the consent is once granted it cannot be revoked; that it lasts during the life of the corporation, if the corporation sees fit to exercise it; and that, having once been given, it need not be repeated; in fact, that the corporation derives its powers to open and dig up the streets from the Legislature, but that the consent of the aldermen is the condition precedent to the exercise of that power, and that having once been given, the condition is fulfilled. On this point see the case of the *City of Brooklyn vs. Jourdan*, 7 Abbott, New Cases, 23; *State of Ohio vs. Cincinnati Gas Light and Coke Co.*, 18 Ohio State, 262.

"It would seem that this construction existed in the minds of the legislators when chapter 106, above referred to, was passed, since they have, in section 77, extended to the aldermen the power to, in every reasonable and needed respect, exercise full control so far as the public convenience should require of those streets in respect to which general powers were acquired by the consent contemplated by section 75. These broad statutes are similar in nearly all the States, and the powers of the city with respect to the kind of ordinance possible under such a statute were fully considered in the case of *The Commissioners, etc., of Northern Liberty vs. Northern Liberty Gas Co.*, 12 Pennsylvania St., 318, where it was held that although the gas company might possess general authority to dig up the streets, yet that an ordinance which prohibited the opening of paved streets during the winter was valid and binding upon the company and within the general authority to do all things necessary for the preservation of the public convenience.

“ Respecting the general powers of the board of aldermen, and as to what ones have passed to the mayor under the words ‘ executive and administrative ’ in the statute of 1885, above referred to, reference is made to the case of the Attorney-General *vs.* Boston, in 142 Mass., 200, from which it appears that the right to declare whether the public necessity and convenience required the maintenance of a sidewalk on a portion of Boylston Street remained in the aldermen. We are not aware of any other case in which any effort has been made to construe that portion of that statute.”

Notices have also been sent to the Attorney-General, as required by the statutes, of violations of law in the following cases : —

By the —

Amherst Gas Company ;
Bridgewater Electric Company ;
Cambridge Electric Light Company ;
Chicopee Electric Light Company ;
Chicopee Gas Works ;
Cottage City Gas and Electric Light Company ;
Easthampton Gas Company ;
Edison Electric Illuminating Company of Brockton ;
Elliot Falls Electric Light Company ;
Franklin Electric Light Company ;
Hull Electric Light and Power Company ;
Jamaica Plain Gas Light Company ;
Milton Light and Power Company ;
Millis Company ;
Nantucket Electric Light Company ;
Newburyport Gas and Electric Company ;
Northampton Electric Lighting Company ;
Northampton Gas Light Company ;
North Attleborough Steam and Electric Company ;
Orange Electric Light Company ;
Pittsfield Electric Company ;
Pittsfield Coal Gas Company ;
South Hadley Falls Electric Light Company ;
Stoughton Gas and Electric Company ;
Taunton Electric Lighting Company ;
Union Electric Light Company ;
Ware Electric Company ;
Weymouth Light and Power Company ;
Whitman Electric Company ;
Woburn Electric Light Company —

in not making returns to the Board within the time required by law.

By Alonzo W. Perry of Boston, in erecting wires, for use in conveying electricity for lighting, over Arch, Federal and South streets in Boston, without the consent of the board of aldermen.

By the North Adams Gas Light Company and Salem Gas Light Company, in supplying gas containing sulphuretted hydrogen.

ACCIDENTS.

In accordance with section 2, chapter 350, Acts of 1888, it is the duty of the Board to present herewith an abstract of cases wherein persons sustained bodily injury from gas and electricity manufactured and sold for light and fuel during the year 1893. The Board is but little helped in performing this duty by the reports which are required by law to be rendered to it by the various companies, as only a small percentage of the accidents seem to come to the knowledge of these companies.

The Board has received reports from the medical examiners of the State, from hospitals and other sources, of fifty-two accidents from illuminating gas in the State during the year. There were twenty-five deaths, all but two in Boston; ten in hotels, usually of an ordinary class; five in lodging-houses, and one in an institution. There were nineteen cases where escaping gas caused the death of one or more persons; of these fifteen were isolated cases. There was one case where two were found dead and a third recovered; there were two cases where two were found dead and one case where one was found dead and the other recovered. Three of the isolated cases were undoubtedly suicides, and there was an attempted double suicide, successful in the case of one of the parties. Nine of the isolated cases appeared to be accidental and three of the collective ones. In four of the isolated cases it was doubtful whether the turning on of the gas was intentional. Of the nine accidental isolated cases, four were probably due to ignorance, one to intemperance, one to bad gas fixtures, three to carelessness. Of the three collective accidental cases two were probably due to ignorance and one to carelessness. Fifteen of the fatal accidents occurred in hotels and lodging-houses.

Since April 30, 1890, when the State took off the limit of ten per cent. from the amount of carbonic oxide allowed in gas, the number of fatalities has increased alarmingly. In 1889 there were two deaths reported by this Board; in 1890, eight; in 1891, sixteen; in 1892, eighteen. It is noteworthy that many of these

accidents from gas take place in lodging-houses and hotels of an ordinary class, frequented by people unacquainted with the use of illuminating gas. It seems advisable that the proprietors of hotels and lodging-houses should inspect their gas fixtures and that they should place in each room a conspicuous notice, warning guests of the danger of blowing out the gas or leaving it burning with a low flame.

ACCIDENTS FROM GAS.

Fatal Cases in Boston.

George Wilson of Rowley, aged 24, took a room at the Hotel Falmouth, on Causeway Street, on March 1. A strong smell of gas being observed, the door of his bedroom was broken in and the occupant found to be dead. The unlighted gas was turned on full force. His property was found intact beneath his pillow. In the opinion of Medical Examiner Harris, it was a case of accident to a man unfamiliar with the deadly nature of the gas and the proper method of extinguishing it.

At 7.10 P.M., March 9, 1893, Susan B. Warner registered at the Hampden House, Haymarket Square. She was observed by its proprietor to be somewhat under the influence of liquor. At 2.30 P.M., on the following day, the porter entered the room by the fire-escape and found the body lying on the floor, face downward. The gas was turned "full on."

A woman, a native of Malden, at the Columbus Hotel, Commercial and Prince streets, was found dead in bed on March 13. She had been asphyxiated, the gas having either been blown out or imperfectly turned off.

An unknown man was found in an unconscious state on March 13 at the Columbus Hotel, Commercial and Prince streets. He was occupying the same room with the above. He was taken to the City Hospital, where he died.

Wm. McMullen and wife of Pawtucket, R. I., who had been reduced from comfortable circumstances to barely enough to pay

for the rent of their room, took lodging at the Bay State House, Hanover Street, on April 8. The next morning, with the gas turned on, both were found unconscious, and were then taken to the City Hospital, where the woman died at 9 A.M. The man recovered.

Otto Anderson, aged 24; Oscar Swenson, aged 24; Sophia Mobery, all of Boston, all Swedes and all unmarried, April 9, at house 36 Fleet Street. The three were employed in the saloon of Charles Williams and lived there, the two men sleeping in the room on one side of the kitchen and the woman in the room on the other side. At 10 o'clock A.M. the rooms were entered and Miss Mobery was found on the floor of her room, unconscious. Both men were dead in their room. The gas jet in this room was turned on half way. All three rooms were filled with gas. Miss Mobery recovered entirely from this accident.

John F. Gleason, aged 37, 28 Hanson Street, was found dead in bed at 8 A.M., May 12, 1893, undressed, in a natural position, door locked on inside. The room was full of gas and the key at the single bracket fixture was turned on; the key turned easily, and the supposition was that, having undressed and turned out the gas, he accidentally turned it on again, but was asleep before he noticed the odor of escaping gas. There seemed to be no motive for suicide.

Louise Preston, aged 30, 103 Falmouth Street, was found dead at 7.15 A.M., May 14, 1893, lying upon the floor of a room which she had occupied alone the previous night. The room was full of gas and the key of the fixture was turned on full. She had been mentally depressed for some time through dread of penury and had attempted suicide three times, once by shooting in the head, once by inhaling ether, and recently by inhaling illuminating gas.

James Graney of Willimantic, Ct., in a room at a lodging-house, 46 Beach Street, on July 13. The man hired the room the night before and retired in a sober condition. In the morning another

inmate of the house smelled a strong odor of escaping gas. The locked door of the room was forced open and the occupant found undressed in bed, dead. The windows were closed, one key of the chandelier was turned on full and the other was partly turned on. There was little to show whether this was a case of suicide or accident.

Rachel Waas, aged 7, and Martha Lippold, aged 15, at 10 Kensington Street, Roxbury, on September 1. One was the daughter of the occupant of the house, the other was the nursery girl, who was engaged at an intelligence office the day before the accident. Mrs. Waas saw the two girls to bed and left the gas burning slightly; she shut the door. At 6 A.M. Mr Waas noticed a smell of gas and opening the door of the girls' room, found both lying dead on the floor.

Katrina Bingtzen, aged 51, 10 Willard Park, was brought to the City Hospital at 8.30 A.M., September 9, in the state of asphyxia. Stimulants and transfusion were resorted to, but she died on September 13. She was thought to have blown out the gas.

Mary Tuttle, aged 65, lodging at 342 Tremont Street, was found September 21, dead on her bed, door and window closed and gas turned on.

William F. Adair, aged 38, reported as very intemperate and drinking immoderately since September 16; admitted to Washington Home, 7.30 P.M., Sept. 25, 1893. Nervous and shaky; seen at midnight apparently sleeping; attendant left door ajar and a small turned-down light at single gas fixture over head; windows partly open for ventilation. At 4 A.M. attendant found door shut tightly, room dark and full of gas; the key at gas fixture was turned on full, windows shut. Adair was dead when found.

David F. Williams, aged 56, a commercial traveller, went to bed at the Coolidge House, in Bowdoin Square, on September 27.

In the morning he was found dead in his bed and the gas turned on. There were some minor things in the case suggestive of suicide, especially his entire familiarity with gas and its handling; but, on the other hand, the stop-cock was so easily turned that it was entirely possible that after he had turned it he might have hit the key and turned it on, and he may have fallen asleep and been gradually poisoned to death in consequence of accident alone.

Adelard Le Blanc, aged 23, came to the hotel 200 Friend Street, on the night of September 30. In the morning he was found, after the room had been forcibly entered, lying on his bed, partly dressed, quite dead and the gas turned on unlighted.

Jose Francisco d' Oliveira, at the Hotel Eastern, 127 Causeway Street, on November 17. The man was found at 7 o'clock in the morning unconscious, and taken to the Massachusetts General Hospital, where he died on November 19.

J. M. Baxter, aged 55, at the Hampden House, Haymarket Square, December 21. The man was found dead in his bedroom, suffocated by gas.

John McLean of Quincy, aged 60, at the Hampden House, Haymarket Square, on December 21. Hired his room the night before. At 1 o'clock P.M. on the 21st he had not come down, and the chambermaid knocked on the door to arouse him. She received no answer. The door was broken in and Mr. McLean was found dead in bed. His clothes were on. The room was full of gas, which had escaped from the jet turned on.

Prudence Derrig, aged 85. Mrs. Derrig went to bed at 160 Center Street, Roxbury, between 11 and 12 P.M., December 23, 1893. The gas was lighted for her and turned down low, to be left for the night. The key was turned on about one-quarter. At 9.30 A.M., December 24, gas was smelt in the entry outside her room. Her chamber door (locked) was broken open

and she was found dead lying on floor. The room was full of gas, light was out at fixture, the key as it had been left. The presumption was that the gas was accidentally extinguished.

Conrad Highwood, aged 69, 95 Regent Street, Roxbury. Mr. Highwood had been sick for two years with paralysis, heart disease and insomnia. He slept alone and habitually left his gas burning with the key one-half on. At 7 A.M., December 29, his wife smelled gas in the hall outside his door; going in found him dead in bed in a natural posture. The room was full of gas, the key at fixture was turned half on as usual, and gas was escaping freely. There was no evidence of suicidal intent.

William Blackburne, aged 45, was found dead on the lounge in his room at 112 West Concord Street, where he had lived for the past two years. The gas was turned on; doors and windows closed. Mr. Blackburne had been very despondent since the death of his wife, which occurred in January. A letter found in his room showed suicide to have been premeditated.

Other Cases in Boston.

Lizzie Melrose, Annie Darling and Lizzie Darling, occupying a bedroom together at the Richwood Hotel, on January 2, retired for the night at 12.30. There was a defective key which was turned around so as to let the gas on again. At 8 o'clock the Misses Darling awakened, feeling badly, and Miss Melrose got up and fell unconscious. Physicians were summoned; Miss Melrose was unconscious until 1 o'clock in the afternoon and all three were kept walking in the corridor. The next day all three were well.

On February 1 two policemen were passing the store of George E. Allen, at 12 Winter Street, when they discovered a strong smell of gas escaping from the building. They notified Gas Inspectors C. A. Hamlin and John Griffin, at the office of the Boston Gas Company, and the two men entered the basement of the building through a window in an alley and succeeded in turning off the gas

at the meter. Before they could get out Griffin was overcome by the gas, and Hamlin shouted for help. The officers, who had been standing in the alley, heard his cries and went in and found him leaning over the unconscious body of his companion. Griffin was taken out and carried to the company's office, where he was resuscitated. The whole building and its contents were saturated with gas.

Henry Gowan, aged 30, a gasfitter, while repairing a leak in the gas pipe in the house 17 Cambridge Street, on the afternoon of March 4, was rendered unconscious by the escaping gas. He was found in this condition by a resident of the house. A physician was sent for and Gowan was taken home, where he recovered.

On November 14 a strong smell of gas was perceived in the building bounded by Pleasant Street, Shawmut Avenue and Cabot Place. The whole house was filled with gas. The names of those who were affected are: T. D. Monast, 56 Shawmut Avenue; Mrs. Monast, his mother; Lottie Ella Bates and Wilhelmina Bates, Mrs. William L. Tharby and Augustus Tharby of 52 Pleasant Street; Quong Lung, Lee Chung and Lee Sing, 60, and Wong Soo, 63½ Shawmut Avenue. The gas came from a broken street main. The mains of the Boston Gas Light Company and the Brookline Gas Light Company go down Shawmut Avenue.

On November 20, Frank Monahan, 30 years of age, 1485 Tremont Street, employed by the Brookline Gas Company, while making a connection with a street lamp on Mount Pleasant Avenue, Roxbury, was overcome by escaping gas and rendered unconscious. He was taken to the City Hospital, where he recovered.

A severe gas explosion occurred in the house owned by William Faunce, 475 Columbus Avenue, on November 31, by which several persons were injured, one probably fatally. Mr. Faunce, together with Mr. George H. Duncan and two gasfitters, went into the cellar in search of a gas leak. Mr. Faunce had with him a lighted

lantern, and when he reached the cellar an explosion took place. He was badly burned about the face, neck, hands and arms. Mr. Duncan was badly burned about the face. Fred Walters, a gas-fitter, of 117 Northampton Street, was also badly burned about the face, and the sight of his left eye nearly destroyed. William Sperry, gasfitter, was slightly burned about the face. The damage to the building was slight. It was believed that the gas leaked from a main in the street.

John McCarthy of Roxbury, aged 51, employed at the store at 760 Washington Street, at 9 o'clock on the morning of December 2, smelt leaking gas and went to the basement to find where the leak was. He lighted a match when he got down to the basement and at the instant there was a loud explosion. He was badly burned about the face, arms and hands and was taken to the City Hospital, where he recovered.

One fatal case has been reported in Lowell and one in Worcester, both due to ignorance, and four other cases in places outside of Boston.

Fatal Case in Lowell.

John Berg of South Chelmsford, at a room in the Franklin House, in Middlesex Street, December 3. On the night of December 2 he retired at 10.30 o'clock. At 10.30 o'clock the next morning the bedroom door was opened. The gas was turned three-quarters on, and Berg, who had blown it out, was lying unconscious on the bed. The room was small and the window closed. A physician was called and every effort made to save the man, but he stayed unconscious and died at 9 o'clock on the night of December 4. The doctors agree that the man died of heart failure, superinduced by excessive inhalation of illuminating gas; but they also agree that it is a most extraordinary thing for a person, especially one of such a healthy and rugged nature, to live for thirty-six hours and finally, without a perceptible change in his condition, die.

Fatal Case in Worcester.

Nellie Powers, aged 17, was found unconscious on October 24, in the morning, in a room at 44 Front Street, Worcester, where she was employed as a domestic. She was lying on the bed and the gas was turned on full force. She went to bed in cheerful spirits. She had been in this country but six months and was unfamiliar with the use of gas. She was sent to the Worcester City Hospital, where she died two days after admission.

Other Cases.

Joseph Goodreault and family, his wife, two children and grown son, Zeph Goodreault, were, during the night of November 22, nearly asphyxiated by illuminating gas in the house, 88 Loomis Street, Haverhill. They were awakened and saved themselves by opening the windows. The gas pipe in front of the house had broken during the night, and, the ground being frozen, the gas found its way into the house. All recovered.

Daniel Conners, a workman at the New Bedford Gas and Edison Light Company, was on the evening of December 10 engaged with the foreman and another man in stopping a leak in the condenser. Feeling that he was getting too much gas he came out of the condenser room and fell unconscious outside the door, bruising and cutting his face. He was brought to consciousness by being walked around by his fellow-workmen and resumed work that evening.

Asa T. Pratt, occupying a room at the house of George W. Norris on Hurd Street, in Lowell, retired on December 16, having turned the key in the gas jet so far around that the gas was turned on again. In the morning he was found insensible and was taken to St. John's Hospital, where he recovered the next day.

ACCIDENTS FROM ELECTRICITY.

Five persons were injured by electricity from electric light wires, three of them fatally. The cases were as follows: —

Stephen Willey, a patrolman of the Boston Electric Light Company, was found on the evening of July 18 in the yard of the New York & New England Railroad Company in an unconscious condition and was taken to the Emergency Hospital, where he died on the evening of the following day. It is supposed that he found some trouble with a lamp located near where he was found and that he had fallen from the pole. There were no witnesses as to the cause of the fall.

Thomas Wall, roofer, employed by Moore & Ward, Province Court, on Friday, August 25, while at work on the roof of the building 490 Washington Street, came in contact with a live electric light wire of high voltage and was killed.

Joseph Corcoran of Boston was, on January 8, running up Dorchester Street, South Boston, to catch a car, and when near the bridge which crosses the track of the Old Colony Railroad, ran against a wire which had been left suspended from one of the poles. He was knocked down and blood poured from his mouth and ears.

A boy of 14, named Timmins, on September 2, while at play on Somerville Avenue, near Medford Street, Somerville, tried to swing on a broken-down telephone wire that reached to the sidewalk. The telephone wire swung against a live wire and the boy received the shock. He fell unconscious, but was taken to a drug store, where he recovered.

George P. Goddard of Brockton was returning from Cary Hill with two companions. In crossing a bridge Goddard placed his hands on a high board fence to pull himself up to see what was behind the fence. Close to the top of the fence ran a live wire, attached to the boards, and the whole charge was received at once by him. He struggled to free himself, but the current was so strong that he was prevented. Each of his companions took hold of an arm and succeeded in releasing him, both receiving severe

shocks. Goddard's hands were burned in a terrible manner, necessitating the amputation of two fingers.

Richard Bates was walking in Watertown on the evening of September 7. The night was dark and rainy, and Bates, carrying an umbrella, walked into a telephone wire that had been detached from its pole and lay coiled up on the crossing. The telephone company reported to Medical Examiner Mead that this wire was crossed with an arc light wire at a distance of two miles from the place of accident. Bates lived about fifteen minutes.

GAS COMPANIES.

The following table shows the corporate name, the localities supplied, the capital and the par value of the shares of the gas companies in active operation on the thirtieth day of June last :—

| CORPORATE NAME. | Localities Supplied. | Capital. | Par Value. |
|--|--|-----------|------------|
| Adams Gas Light Co., | Adams, | \$17,300 | \$25 |
| Amesbury & Salisbury Gas Co., | Amesbury, | 60,000 | 100 |
| Amherst Gas Co., | Amherst, | 25,000 | 100 |
| Arlington Gas Light Co., | Arlington, | 70,000 | 100 |
| | Belmont, | - | - |
| | Winchester, | - | - |
| Athol Gas & Electric Co., | Athol, | 25,000 | 100 |
| Attleborough Gas Light Co., ¹ | Attleborough, | 46,400 | 100 |
| Bay State Gas Co., | Boston (in part), ² | 500,000 | 100 |
| Beverly Gas & Electric Co., | Beverly, | 92,000 | 100 |
| Boston Gas Light Co., | Boston (city proper), | 2,500,000 | 500 |
| Brockton Gas Light Co., | Brockton, | 178,500 | 100 |
| Brookline Gas Light Co., | Brookline, | 1,000,000 | 100 |
| | Boston (in part), | - | - |
| Cambridge Gas Light Co., | Cambridge, | 700,000 | 100 |
| | Somerville (in part), | - | - |
| Charlestown Gas & Electric Co., | Charlestown, | 500,000 | 50 |
| | Somerville (in part), | - | - |
| | Medford (in part), | - | - |
| | Everett (in part), | - | - |
| Chelsea Gas Light Co., | Chelsea, | 300,000 | 100 |
| | Everett (in part), | - | - |
| Chicopee Gas Works, ¹ | Chicopee Centre, | 30,000 | - |
| Citizens' Gas Light Co. of Quincy, | Quincy, | 63,000 | 100 |
| Citizens' Gas Light Co. of Reading, | | | |
| South Reading and Stoneham, | Wakefield, | 95,300 | 100 |
| | Reading, | - | - |
| | Stoneham, | - | - |
| Clinton Gas Light Co., | Clinton, | 73,000 | 500 |
| Cottage City Gas & Electric Light Co., | Cottage City, | 25,000 | 100 |
| Danvers Gas Light Co., | Danvers, | 20,000 | 50 |
| Dedham & Hyde Park Gas & Electric Light Co., | Dedham, | 100,000 | 50 |
| | Hyde Park, | - | - |
| Dorchester Gas Light Co., | Boston (Dorchester District), | 400,000 | 100 |
| | Milton, | - | - |
| East Boston Gas Co., | Boston (E. Boston), | 220,000 | 25 |
| Easthampton Gas Co., | Easthampton, | 30,000 | 100 |
| Fall River Gas Works Co., | Fall River (in part), | 288,000 | 100 |
| Fitchburg Gas Co., | Fitchburg, | 150,000 | 50 |
| Framingham Gas, Fuel & Power Co., | South Framingham, | 75,000 | 100 |
| Gloucester Gas Light Co., | Gloucester, | 80,000 | 50 |
| Greenfield Gas Light Co., | Greenfield, | 50,000 | 50 |
| Haverhill Gas Light Co., | Haverhill, | 75,000 | 50 |
| | Bradford, | - | - |
| Ipswich Gas Light Co., | Ipswich, | 18,000 | 100 |
| Jamaica Plain Gas Light Co., | Boston (Ward 23), | 250,000 | 100 |
| Lawrence Gas Co., | Lawrence, | 590,000 | 100 |
| | Methuen, | - | - |
| | North Andover, | - | - |
| Leominster Gas Light Co., | Leominster, | 50,000 | 100 |
| Lexington Gas Light Co., | Lexington, | 20,000 | 100 |
| Lowell Gas Light Co., | Lowell, | 500,000 | 100 |
| | Dracut, | - | - |
| | Tewksbury, | - | - |

¹ Not incorporated.² Sold principally to other companies.

| CORPORATE NAME. | Localities Supplied. | Capital. | Par Value. |
|---------------------------------------|--------------------------------------|-----------|------------|
| Lynn Gas & Electric Co., . . . | Lynn, | \$375,000 | \$100 |
| | Swampscott, | — | — |
| | Saugus, | — | — |
| Malden & Melrose Gas Light Co., . | Malden, | 220,000 | 100 |
| | Melrose, | — | — |
| | Medford (in part), | — | — |
| | Everett (in part), | — | — |
| Manufacturers' Gas Light Co., . . . | Fall River (in part), | 50,000 | 100 |
| Marblehead Gas & Electric Light Co., | Marblehead, | 40,000 | 100 |
| Marlborough Gas Light Co., . . . | Marlborough, | 50,000 | 100 |
| Middleborough Gas & Electric Co., . | Middleborough, | 80,000 | 100 |
| Milford Gas Light Co., | Milford, | 72,300 | 100 |
| | Hopedale, | — | — |
| Nantucket Gas Light Co., | Nantucket, | 36,000 | 100 |
| Natick Gas Light Co., | Natick, | 20,000 | 100 |
| New Bedford Gas and Edison Light Co., | New Bedford, | 550,000 | 100 |
| Newburyport Gas & Electric Co., . | Newburyport, | 140,000 | 100 |
| Newton & Watertown Gas Light Co., | Newton, | 250,000 | 100 |
| | Watertown, | — | — |
| | Wellesley, | — | — |
| | Weston, | — | — |
| North Adams Gas Light Co., | North Adams, | 50,000 | 100 |
| Northampton Gas Light Co., | Northampton, | 50,000 | 25 |
| North Attleborough Gas Light Co., . | North Attleborough, | 63,100 | 100 |
| | Wrentham, | — | — |
| Norwood Gas Light Co., | Norwood, | 12,000 | 100 |
| Pittsfield Coal Gas Co., | Pittsfield, | 62,500 | 100 |
| Plymouth Gas Light Co., | Plymouth, | 40,000 | 100 |
| Roxbury Gas Light Co., | Boston (Roxbury District), | 600,000 | 100 |
| Salem Gas Light Co., | Salem, | 300,000 | 100 |
| | Peabody, | — | — |
| South Boston Gas Light Co., | Boston (South Boston), | 440,000 | 100 |
| Southbridge Gas & Electric Co., . | Southbridge, | 50,000 | 50 |
| Spencer Gas Co., | Spencer, | 85,000 | 100 |
| Springfield Gas Light Co., | Springfield, | 500,000 | 100 |
| Stoughton Gas & Electric Co., . . . | Stoughton, | 24,000 | 100 |
| Taunton Gas Light Co., | Taunton, | 80,000 | 50 |
| Waltham Gas Light Co., | Waltham, | 140,000 | 100 |
| Webster Electric Co., | Webster, | 45,000 | 100 |
| | Dudley, | — | — |
| Westfield Gas Light Co., | Westfield, | 54,000 | 100 |
| Williamstown Gas Co., | Williamstown, | 20,000 | 100 |
| Woburn Gas Light Co., | Woburn, | 45,100 | 100 |
| Worcester Gas Light Co., | Worcester, | 500,000 | 100 |

The company at Fitchburg furnishes water, that at Gloucester maintains a wharf and supplies water, and that at Springfield furnishes steam for heating. In addition to these, the companies in Amherst, Athol, Beverly, Brookline, Charlestown, Chelsea, Clinton, Cottage City, Easthampton, Fitchburg, Lawrence, Lexington, Lynn, Middleborough, New Bedford, Newburyport, Newton, North Adams, Southbridge, Spencer, Stoughton, Wakefield, Waltham, Webster and Westfield, have furnished electric light.

The following table shows the names of the owners of gas works not owned by gas companies, the localities supplied, and the estimated value of the plants : —

| | | |
|-----------------------------------|-----------------------|-------------|
| Chicopee Manufacturing Co., . . . | Chicopee Falls, . . . | \$25,000 00 |
| Holyoke Water Power Co., . . . | Holyoke, . . . | 100,000 00 |
| Otis Co., . . . | Ware, . . . | 10,000 00 |
| Mrs. M. L. Ruggles, . . . | Gardner, . . . | 14,100 00 |

The following companies report bonds or notes outstanding : —

| | | | |
|--------------------------------|-----------|-----------------------------|-----------|
| Amherst, | \$18,500 | Lynn, | \$128,000 |
| Athol, | 25,000 | Malden, | 24,400 |
| Bay State, | 4,507,000 | Marblehead, | 7,500 |
| Beverly, | 11,800 | Middleborough, | 80,000 |
| Boston, | 180,000 | Nantucket, | 2,000 |
| Brockton, | 100,000 | Natick, | 10,000 |
| Brookline, | 505,000 | New Bedford, | 230,800 |
| Charlestown, | 70,000 | Newburyport, | 14,000 |
| Chelsea, | 100,000 | Newton, | 109,000 |
| Citizens' (Quincy), | 27,000 | North Adams, | 38,000 |
| Citizens' (Wakefield), | 94,422 | Northampton, | 8,000 |
| Clinton, | 74,000 | North Attleborough, | 33,915 |
| Dedham, | 8,500 | Plymouth, | 1,500 |
| Easthampton, | 5,000 | Southbridge, | 13,500 |
| Fitchburg, | 12,000 | Spencer, | 85,000 |
| Framingham, | 87,682 | Springfield, | 25,000 |
| Greenfield, | 1,000 | Waltham, | 66,000 |
| Haverhill, | 37,500 | Webster, | 30,000 |
| Ipswich, | 8,400 | Westfield, | 21,500 |
| Jamaica Plain, | 20,000 | Williamstown, | 11,300 |
| Lawrence, | 150,000 | Worcester, | 130,000 |
| Lexington, | 29,300 | | |

The following table shows the whole number of stockholders, the number resident in Massachusetts, and the par value of the stock held within the Commonwealth:—

| COMPANY. | Whole Number of Stockholders. | Number of Stockholders resident in Massachusetts. | Value at Par of Stock held in Massachusetts. |
|--|-------------------------------------|--|--|
| Adams, | 8 | 8 | \$17,300 |
| Amesbury, | 11 | 11 | 60,000 |
| Amherst, | 37 | 37 | 25,000 |
| Arlington, | 51 | 40 | 42,000 |
| Athol, | 8 | 3 | 2,300 |
| Attleborough, | 21 | 18 | 45,600 |
| Bay State, | 7 | 5 | 500 |
| Beverly, | 40 | 40 | 92,000 |
| Boston, | 6 | 4 | 2,000 |
| Brockton, | 55 | 49 | 176,200 |
| Brookline, | 72 | 55 | 219,600 |
| Cambridge, | 422 | 386 | 627,600 |
| Charlestown, | 260 | 243 | 466,750 |
| Chelsea, | 136 | 130 | 292,800 |
| Citizens' (Quincy), | 7 | 7 | 53,000 |
| Citizens' (Wakefield), | 45 | 43 | 94,400 |
| Clinton, | 24 | 24 | 73,000 |
| Cottage City, | 10 | 10 | 25,000 |
| Danvers, | 18 | 17 | 11,950 |
| Dedham, | 38 | 32 | 59,650 |
| Dorchester, | 21 | 19 | 303,800 |
| East Boston, | 140 | 118 | 189,675 |
| Easthampton, | 41 | 34 | 26,700 |
| Fall River, | 17 | 11 | 11,300 |
| Fitchburg, | 50 | 47 | 143,350 |
| Framingham, | 20 | 18 | 47,500 |
| Gloucester, | 80 | 78 | 77,850 |
| Greenfield, | 36 | 27 | 43,700 |
| Haverhill, | 48 | 44 | 72,400 |
| Ipswich, | 20 | 20 | 16,000 |
| Jamaica Plain, | 145 | 138 | 236,500 |
| Lawrence, | 223 | 198 | 522,900 |
| Leominster, | 61 | 57 | 49,200 |
| Lexington, | 21 | 20 | 19,900 |
| Lowell, | 264 | 227 | 451,000 |
| Lynn, | 163 | 166 | 367,200 |
| Malden, | 147 | 124 | 186,500 |
| Manufacturers' (Fall River), | 7 | 7 | 50,000 |
| Marblehead, | 29 | 23 | 32,500 |
| Marlborough, | 13 | 13 | 50,000 |
| Middleborough, | 13 | 13 | 80,000 |
| Milford, | 53 | 51 | 71,700 |
| Nantucket, | 52 | 48 | 34,600 |
| Natick, | 21 | 21 | 20,000 |
| New Bedford, | 362 | 325 | 495,600 |
| Newburyport, | 98 | 83 | 130,100 |
| Newton, | 173 | 170 | 241,700 |
| North Adams, | 37 | 28 | 47,800 |
| Northampton, | 42 | 31 | 31,200 |
| North Attleborough, | 38 | 34 | 65,200 |
| Norwood, | 4 | 3 | 9,300 |
| Pittsfield, | 59 | 46 | 54,700 |
| Plymouth, | 33 | 28 | 30,900 |

| COMPANY. | Whole Number of Stockholders. | Number of Stockholders resident in Massachusetts. | Value at Par of Stock held in Massachusetts. |
|-------------------------|-------------------------------------|--|--|
| Roxbury, | 8 | 4 | \$400 |
| Salem, | 249 | 223 | 276,700 |
| South Boston, | 20 | 16 | 30,000 |
| Southbridge, | 66 | 63 | 47,550 |
| Spencer, | 17 | 17 | 85,000 |
| Springfield, | 123 | 114 | 474,400 |
| Stoughton, | 6 | 6 | 24,000 |
| Taunton, | 116 | 108 | 75,250 |
| Waltham, | 103 | 94 | 130,000 |
| Webster, | 16 | 16 | 45,000 |
| Westfield, | 23 | 20 | 47,700 |
| Williamstown, | 3 | 3 | 20,000 |
| Woburn, | 44 | 43 | 44,600 |
| Worcester, | 191 | 179 | 460,300 |

The following statistics exhibit the aggregate receipts and expenses of all the companies in the State, compiled from the items relating to the manufacture and sale of gas in the returns of the last two years made to the Board:—

| | FOR YEAR ENDING JUNE 30. | |
|--|--------------------------|-----------------------|
| | 1892. | 1893. |
| RECEIPTS:— | | |
| For gas sold by meter, | \$5,308,118 06 | \$5,439,302 81 |
| For gas supplied to public lamps, | 262,777 00 | 262,309 09 |
| From sales of coke, | 241,288 05 | 246,726 49 |
| sales of tar, | 165,940 10 | 151,735 02 |
| sales of ammoniacal liquor, | 21,123 10 | 23,702 18 |
| rent of meters, | 1,392 24 | 1,924 19 |
| rent of gas stoves and engines, | 2,109 04 | 1,169 31 |
| rent of gas lamps, | 2,029 04 | 1,119 64 |
| public lamps other than gas lamps, | — | 2,545 15 |
| other sources, | 12,332 04 | 696 11 |
| Total, | \$6,017,103 67 | \$6,132,329 28 |
| EXPENSES:— | | |
| 1. Coals, | \$1,051,727 47 | \$1,034,363 75 |
| 2. Enrichers, | 243,574 56 | 290,334 14 |
| 3. Purifying materials, | 25,859 20 | 29,393 79 |
| 4. Water, | 21,337 89 | 24,333 06 |
| 5. Wages at works, | 507,474 00 | 495,042 69 |
| 6. Repairs and maintenance of works (including renewal of retorts), | 238,049 28 | 262,756 68 |
| 7. Apparatus and machinery, | 50,979 43 | 39,388 56 |
| 8. Wages of meter takers, clerical labor in dis- tribution, and salary or commissions of col- lectors, | 114,572 00 | 124,096 14 |
| 9. Repairs, renewals, and maintenance of mains and service pipes, | 134,132 03 | 151,156 00 |
| 10. Repairs and renewals of meters, | 52,896 84 | 57,297 80 |
| 11. Lighting and repairing (gas lamps only), | 16,432 22 | 11,708 71 |
| Amounts carried forward, | \$2,457,034 92 | \$2,519,871 32 |

| | FOR YEAR ENDING JUNE 30. | |
|---|--------------------------|----------------|
| | 1892. | 1893. |
| <i>Amounts brought forward,</i> | \$2,457,034 92 | \$2,519,371 32 |
| 12. Lighting and repairing, and materials used for other lamps, | 2,150 55 | 2,401 71 |
| 13. Directors' allowances, | 17,469 36 | 18,812 03 |
| 14. Salaries of officers, | 152,701 84 | 152,122 80 |
| 15. General salaries, | 123,247 20 | 126,151 93 |
| 16. Rent of offices, | 24,409 45 | 23,581 64 |
| 17. General office expenses, | 45,974 10 | 54,750 14 |
| 18. Taxes, | 274,380 92 | 282,244 39 |
| 19. Fire insurance, | 15,133 53 | 15,342 07 |
| 20. Law expenses, | 23,695 82 | 55,676 01 |
| 21. Claims, | 14,570 06 | 4,306 26 |
| 22. Bad debts, | 8,493 80 | 7,084 11 |
| 23. Incidental expenses, | 31,438 69 | 13,879 24 |
| 24. Gas bought, | 918,896 83 | 838,970 46 |
| Total, | \$4,109,397 07 | \$4,115,194 11 |
| Leaving an apparent net profit on their gas business of, | \$1,907,711 60 | \$2,017,135 17 |
| They have also received for interest, etc., | 29,934 99 | 21,514 36 |
| for rents, etc., | 172,394 05 | 107,312 76 |
| as profits from electric lighting, | 203,165 54 | 189,425 38 |
| Making a total of | \$2,313,206 18 | \$2,335,387 67 |
| From these receipts were paid interest on bonds and loans, | \$569,667 18 | \$541,669 79 |
| Dividends, | 1,064,489 00 | 1,126,245 87 |
| Other items, | 366,851 86 | 237,585 94 |
| | \$2,001,008 04 | \$1,905,501 60 |
| Leaving a surplus for the year of | \$312,198 14 | \$429,886 07 |

Two¹ of the companies appear not to have earned expenses, and thirteen² others have not earned sufficient to warrant the declaration of any dividend.

The receipts for gas sold by meter show an apparent increase of \$131,184.75; but there has been a decrease of \$79,926.37 in the sales made by the Boston companies to one another, which makes the actual increase in sales to general consumers \$211,111.12. For the six years ending with June, 1892, the receipts from public lamps regularly decreased at the average rate of about \$28,000 per year. This year the decrease has been only \$467.91.

In the appendix will be found, under date of June 30, 1893, the separate balance sheets, profit and loss and manufacturing accounts of the gas companies, as taken from the annual returns, with corrections as made by the Board after examination and correspondence with the officers of the several companies.

¹ Three last year.² Sixteen last year.

Aggregates from these balance sheets and those in the returns of 1892 show the following facts :—

| | June 30, 1892. | June 30, 1893. |
|--|------------------------|------------------------|
| ASSETS :— | | |
| Real estate, machinery, street mains and meters, | \$23,792,181 66 | \$24,568,228 71 |
| Cash on hand, | 499,648 17 | 579,321 12 |
| Due for gas, | 490,170 91 | 462,814 99 |
| Other accounts due, | 176,348 29 | 126,572 80 |
| Materials, etc., | 601,973 02 | 486,291 83 |
| Notes receivable, | 229,986 57 | 190,998 83 |
| Investments, | 432,127 41 | 486,608 88 |
| Electric assets, | 2,332,092 50 | 2,802,290 11 |
| | \$28,554,528 53 | \$29,703,127 27 |
| LIABILITIES :— | | |
| Capital stock, | \$13,580,000 00 | \$14,253,500 00 |
| Bonds, | 1,403,715 00 | 1,393,715 00 |
| Notes payable, | 5,702,708 38 | 5,842,938 30 |
| Unpaid bills, | 271,797 55 | 329,402 91 |
| Unpaid dividends, | 23,686 46 | 26,365 01 |
| Deposits, | 36,787 07 | 42,842 29 |
| Interest due and unpaid, | 29,453 70 | 36,458 97 |
| Other items, | 42,294 98 | 57,193 02 |
| | \$21,090,443 14 | \$21,982,415 50 |
| Reserved and depreciation funds, | 545,232 46 | 550,083 02 |
| | \$21,635,675 60 | \$22,532,498 52 |
| Surplus, | 6,918,852 93 | 7,170,628 75 |
| | \$28,554,528 53 | \$29,703,127 27 |

Of these companies —

| | | |
|--|----------------|----------------|
| 58 ¹ show an aggregate surplus of | \$7,074,646 23 | \$7,395,054 68 |
| 10 ² show an aggregate deficit of | 155,793 30 | 224,425 93 |
| Leaving total net surplus, as shown above, | \$6,918,852 93 | \$7,170,628 75 |
| Which, added to reserves carried as liabilities, | 545,232 46 | 550,083 02 |
| Would show an actual surplus of | \$7,464,085 39 | \$7,720,711 77 |
| Equivalent to per cent. on capital of about | 55 | 54 |

¹ 57 in 1892.

² 10 in 1892.

The following table shows the valuation of the property of each company, as assessed by the local assessors:—

| COMPANY. | Assessed Value. | COMPANY. | Assessed Value. |
|----------------------------------|-----------------|-------------------------------|-----------------|
| Adams, | \$17,300 | Lowell, | \$998,540 |
| Amesbury, | 18,700 | Lynn, | 320,500 |
| Amherst, | 6,550 | Malden, | 173,300 |
| Arlington, | 35,150 | Manufacturers' (Fall | |
| Athol, | 12,000 | River), | 55,000 |
| Attleborough, | 26,200 | Marblehead, | 13,800 |
| Bay State, | 661,500 | Marlborough, | 15,500 |
| Beverly, | 81,200 | Middleborough, | 36,200 |
| Boston, | 4,516,900 | Milford, | 81,400 |
| Brockton, | 76,200 | Nantucket, | 6,000 |
| Brookline, | 741,200 | Natick, | 12,200 |
| Cambridge, | 831,800 | New Bedford, | 493,700 |
| Charlestown, | 688,546 | Newburyport, | 136,200 |
| Chelsea, | 329,500 | Newton, | 377,100 |
| Chicopee, | 30,000 | North Adams, | 30,950 |
| Chicopee Falls, | 10,000 | Northampton, | 64,900 |
| Citizens' (Quincy), | 13,500 | North Attleborough, | 58,100 |
| Citizens' (Wakefield), | 66,700 | Norwood, | 11,000 |
| Clinton, | 75,000 | Otis Co. (Ware), | 13,150 |
| Cottage City, | 10,400 | Pittsfield, | 76,800 |
| Danvers, | 4,000 | Plymouth, | 23,350 |
| Dedham, | 33,000 | Roxbury, | 633,400 |
| Dorchester, | 298,400 | Salem, | 285,400 |
| East Boston, | 226,400 | South Boston, | 386,300 |
| Easthampton, | 29,500 | Southbridge, | 21,500 |
| Fall River, | 285,100 | Spencer, | 24,400 |
| Fitchburg, | 113,375 | Springfield, | 610,000 |
| Framingham, | 50,000 | Stoughton, | 8,500 |
| Gardner, | 10,850 | Taunton, | 65,900 |
| Gloucester, | 80,000 | Waltham, | 286,800 |
| Greenfield, | 29,000 | Webster, | 31,800 |
| Haverhill, | 165,150 | Westfield, | 52,500 |
| Holyoke, | 260,000 | Williamstown, | 6,158 |
| Ipswich, | 5,400 | Woburn, | 50,000 |
| Jamaica Plain, | 208,800 | Worcester, | 614,300 |
| Lawrence, | 524,000 | | |
| Leominster, | 20,000 | | |
| Lexington, | 13,213 | | \$16,679,182 |

Included in the above are certain companies which have electric light plants, and the following shows the assessed value of such wherever separately returned:—

| | | | |
|------------------------|---------|--------------------------|-----------|
| Amherst, | \$5,500 | Lynn, | \$165,500 |
| Athol, | 5,506 | Middleborough, | 22,000 |
| Beverly, | 34,900 | New Bedford, | 203,700 |
| Charlestown, | 110,000 | North Adams, | 12,550 |
| Chelsea, | 60,800 | Southbridge, | 17,600 |
| Clinton, | 60,800 | Webster, | 21,500 |
| Holyoke, | 160,000 | Westfield, | 16,500 |
| Lawrence, | 90,000 | | |
| Lexington, | 6,000 | Total, | \$986,850 |

The value of the gas plants, as assessed by the local assessors, is then in round numbers \$15,400,000, as the electric plants of the Brookline, Chelsea, Cottage City, Easthampton, Fitchburg, Newburyport, Stoughton, Wakefield and Waltham companies are not given in the above table.

The following table shows the amount paid by each company for taxes after deducting the amounts belonging to the electrical departments and the amount for each thousand feet of gas sold :—

| COMPANY. | Amount of Taxes paid. | Amount per Thousand sold. |
|----------------------------------|-----------------------------|------------------------------------|
| Adams, | \$541 18 | \$0 1189 |
| Amesbury, | 639 73 | 1204 |
| Amherst, | 36 55 | 0418 |
| Arlington, | 1,121 21 | 1893 |
| Athol, | 136 09 | 0413 |
| Attleborough, | 514 29 | 0667 |
| Bay State, | 9,686 85 | 0100 |
| Beverly, | 842 04 | 1180 |
| Boston, | 80,122 34 | 0670 |
| Brockton, | 1,862 82 | 1143 |
| Brookline, | 6,697 24 | 0939 |
| Cambridge, | 19,629 46 | 1431 |
| Charlestown, | 9,881 53 | 1157 |
| Chelsea, | 4,206 46 | 1340 |
| Chicopee, | 482 03 | 0605 |
| Citizens' (Quincy), | 387 88 | 0567 |
| Citizens' (Wakefield), | 744 32 | 1298 |
| Clinton, | 305 04 | 0524 |
| Cottage City, | 156 26 | 0670 |
| Danvers, | 105 38 | 0451 |
| Dedham, | 539 98 | 0898 |
| Dorchester, | 5,887 77 | 0712 |
| East Boston, | 4,480 71 | 1077 |
| Easthampton, | 483 99 | 1423 |
| Fall River, | 6,679 83 | 1210 |
| Fitchburg, | 1,014 64 | 0607 |
| Framingham, | 769 91 | 0669 |
| Gardner, | 243 75 | 1450 |
| Gloucester, | 2,263 39 | 1243 |
| Greenfield, | 401 67 | 1081 |
| Haverhill, | 3,009 93 | 0514 |
| Holyoke, | 1,988 46 | 0354 |
| Ipswich, | 86 68 | 0488 |
| Jamaica Plain, | 4,573 28 | 1048 |
| Lawrence, | 10,791 70 | 1446 |
| Leominster, | 535 08 | 2715 |
| Lexington, | 168 61 | 1649 |
| Lowell, | 18,963 57 | 0714 |
| Lynn, | 5,379 55 | 0607 |

| COMPANY. | Amount of Taxes paid. | Amount per Thousand sold. |
|--|-----------------------------|------------------------------------|
| Malden, | \$4,648 07 | \$0 1176 |
| Manufacturers' (Fall River), | 1,006 43 | 0706 |
| Marblehead, | 378 70 | 1015 |
| Marlborough, | 836 96 | 1453 |
| Middleborough, | 330 87 | 2362 |
| Milford, | 1,450 95 | 1326 |
| Nantucket, | 92 25 | 0425 |
| Natick, | 333 13 | 1151 |
| New Bedford, | 3,901 96 | 0955 |
| Newburyport, | 1,383 94 | 1691 |
| Newton, | 4,462 77 | 0754 |
| North Adams, | 519 56 | 0276 |
| Northampton, | 994 92 | 0762 |
| North Attleborough, | 960 61 | 0736 |
| Norwood, | 216 38 | 1110 |
| Otis Co. (Ware), | 163 33 | 0642 |
| Pittsfield, | 1,605 30 | 1194 |
| Plymouth, | 362 97 | 0790 |
| Roxbury, | 13,207 92 | 0741 |
| Salem, | 4,874 96 | 1370 |
| South Boston, | 7,181 81 | 0925 |
| Southbridge, | 208 69 | 1489 |
| Spencer, | 358 38 | 0435 |
| Springfield, | 8,187 31 | 0923 |
| Stoughton, | 191 66 | 3656 |
| Taunton, | 1,831 58 | 0434 |
| Waltham, | 2,519 90 | 0897 |
| Webster, | 181 49 | 1144 |
| Westfield, | 641 44 | 0818 |
| Williamstown, | 102 60 | 1486 |
| Woburn, | 948 17 | 1087 |
| Worcester, | 11,818 18 | 0801 |
| | \$282,244 39 | - |

The total sum paid by the companies for taxes, including State inspection, after apportioning to electric account that part of the gas companies' taxes belonging to their electrical departments, was \$282,244.39, an average of 6.6 cents per thousand feet of gas sold; being an increase over the previous year in the total amount of \$7,863.47, and a decrease of .2 cents per thousand feet sold.

DIVIDENDS.

The dividends declared by the several companies during the year are shown in the following table:—

| COMPANY. | Rate per Cent. | Amount of Dividends. | Amount per Thousand Sold. |
|--|----------------|----------------------|---------------------------|
| Adams, | 10 | \$1,730 | \$0 3821 |
| Amesbury, | 4½ | 2,700 | 5083 |
| Amherst, | — | — | — |
| Arlington, | 6 | 4,200 | 7091 |
| Athol, | — | — | — |
| Attleborough, | 10 | 4,640 | 5121 |
| Bay State, | 8½ | 43,750 | 0453 |
| Beverly, | 6 | 5,520 | — |
| Boston, | 10 | 250,000 | 2091 |
| Brockton, | 6 | 10,680 | 6562 |
| Brookline, | 6½ | 35,500 | — |
| Cambridge, | 10 | 70,000 | 5105 |
| Charlestown, | 10 | 50,000 | — |
| Chelsea, | 6 | 18,000 | — |
| Chicopee, | 6 | 1,800 | 2261 |
| Citizens' (Quincy), | — | — | — |
| Citizens' (Wakefield), | — | — | — |
| Clinton, | 2 | 1,460 | — |
| Cottage City, | — | — | — |
| Danvers, | 2 | 400 | 1712 |
| Dedham, | — | — | — |
| Dorchester, | 8 | 32,000 | 3870 |
| East Boston, | 10 | 22,000 | 5237 |
| Easthampton, | 6 | 1,800 | — |
| Fall River, | 10 | 28,800 | 5217 |
| Fitchburg, | 10 | 15,000 | — |
| Frammingham, | — | — | — |
| Gloucester, | 11 | 8,800 | 4832 |
| Greenfield, | 4— | 1,560 | 0412 |
| Haverhill, | 10 | 7,500 | 1282 |
| Ipswich, | — | — | — |
| Jamaica Plain, | 8 | 20,000 | 4572 |
| Lawrence, | 7 | 37,100 | — |
| Leominster, | 4 | 2,000 | 1 0147 |
| Lexington, | 3½ | 700 | — |
| Lowell, | 16 | 80,000 | 3014 |
| Lynn, | 8 | 30,000 | — |
| Malden, | 8 | 17,600 | 4455 |
| Manufacturers' (Fall River), | 10 | 5,000 | 3509 |
| Marblehead, | — | — | — |

¹ In addition to this dividend, a rebate is allowed to mills owning stock. This rebate amounted to \$1,867.87.

² No dividend declared.

³ An additional dividend of three per cent. was declared from the earnings of wharf property.

⁴ Six per cent. on preferred stock (\$2,000) and three per cent. on other stock (\$48,000).

| COMPANY. | Rate per Cent. | Amount of Dividends. | Amount per Thousand Sold. |
|-------------------------------|----------------|----------------------|---------------------------|
| Marlborough, | — | 1 — | — |
| Middleborough, | — | 1 — | — |
| Milford, | 10 | \$7,230 | \$0 6606 |
| Nantucket, | — | 1 — | — |
| Natick, | — | 1 — | — |
| New Bedford, | 6 | 33,000 | — |
| Newburyport, | 6 | 8,400 | — |
| Newton, | 8 | 18,000 | — |
| North Adams, | 8 | 4,000 | — |
| Northampton, | 8 | 4,000 | 3062 |
| North Attleborough, | 6 | 4,086 | 3130 |
| Norwood, | — | 1 — | — |
| Pittsfield, | 12 | 7,500 | 5579 |
| Plymouth, | 7 | 2,800 | 6306 |
| Roxbury, | 10 | 60,000 | 3366 |
| Salem, | 7 | 21,000 | 5904 |
| South Boston, | 4 | 17,600 | 2266 |
| Southbridge, | 6 | 2,400 | — |
| Spencer, | — | 1 — | — |
| Springfield, | 8 | 40,000 | 4505 |
| Stoughton, | 6 | 1,440 | — |
| Taunton, | 10 | 8,000 | 1896 |
| Waltham, | 7½ | 10,500 | — |
| Webster, | 3½ | 1,575 | — |
| Westfield, | 8 | 4,320 | — |
| Williamstown, | — | 1 — | — |
| Woburn, | 2 7 | 3,157 | 3619 |
| Worcester, | 8 | 40,000 | 2710 |
| | — | \$1,109,248 | — |

¹ No dividend declared.² Extra dividend of 30 per cent.

PRICE OF GAS.

The following companies have reduced the price of gas during the year ending June 30, 1893 : —

| | | |
|--------------|----------------------|------------------|
| Arlington, | Fall River, | Salem, |
| Bay State, | Gloucester, | Springfield, |
| Boston, | Jamaica Plain, | Waltham, |
| Cambridge, | Lawrence, | Ware (Otis Co.), |
| Charlestown, | Manufacturers' (Fall | Woburn, |
| Chicopee, | River), | Worcester. |
| East Boston, | Nantucket, | |

The following pages show the price charged by the several companies, June 30, 1893; the average candle-power, as shown by the tests made by the State inspector of gas; and the average price, per thousand feet sold by meter, received in the two years ending June 30, 1893.

| COMPANY. | Average Candle- power. | Gross Prices. | REMARKS. | Average Prices, 1891-92. | Average Prices, 1892-93. |
|----------------------------------|------------------------------|------------------|--|--------------------------------|--------------------------------|
| Adams, | 18.2 | \$3 00 | Twenty per cent. discount, if paid within 5 days from date of bill, | \$2 41 | \$2 38 |
| Amesbury, | 22.3 | 2 50 | To consumers using 1,000 feet or more per month \$2.00; special rates to large consumers. | 1 76 | 1 76 |
| Amherst, | 36.3 | 6 00 | For prompt payment if bill amounts to \$5, discount 5 per cent.; to \$10, 10 per cent.; to \$20, 15 per cent.; to \$50, 20 per cent.; to \$75, 25 per cent. Oil gas, with 5 to 8 per cent. of air. | 5 28 | 5 21 |
| Arlington, | 18.1 | 2 50 | | 2 75 | 2 50 |
| Athol, | 21.3 | 3 00 | Discounts: 50 cents per M, if bill is settled within 20 days; 10 per cent. additional to small mills, etc.; 20 per cent. to large mills, etc., | 2 60 | 2 33 |
| Attleborough, | 17.6 | 2 00 | | 2 00 | 2 00 |
| Bay State (Boston), | - | 1 00 | | 1 30 | 1 23 |
| Beverly, | 17.5 | 2 60 | Discount of forty cents per M to consumers of 10,000 feet and upward, 20 cents per M to consumers of over 1,000 feet and less than 10,000 feet a quarter. \$2 per M net for gas stoves, | 2 31 | 2 31 |
| Boston, | 24.8 | 1 00 | | 1 28 | 1 26 |
| Brockton, | 21.9 | 2 10 | Discounts: 5 per cent. off bills less than 5,000 feet; 5,000 feet and over, 21 cents per M, if paid within 10 days. Fuel gas on separate meters \$1.25 net, | 2 03 | 1 97 |
| Brookline, | 19.1 | 1 90 | | 1 90 | 1 89 |
| Cambridge, | 17.0 | 1 70 | Discount 20 cents per M, if paid within 25 days from date of bill. Large consumers, \$1.40 and \$1.30 net, | 1 68 | 1 53 |
| Charlestown, | 19.1 | 1 80 | Discount 20 cents per M, if paid in 15 days, | 1 69 | 1 55 |
| Chelsea, | 18. | 2 00 | Discounts 10 per cent. on bills paid within 15 days; \$1.75 per M to consumers of over 400,000 feet per annum; \$1.50 per M to consumers of over 1,000,000 feet per annum, | 1 83 | 1 80 |
| Chicopee, | 21.2 | 2 50 | Discount 50 cents per M on bills paid on or before the 10th of the month. To consumers using 5,000 feet per month $\frac{7}{8}$ cents per M discount; special rates to very large consumers, | 1 85 | 1 85 |
| Chicopee Falls, | 29. | 4 00 | Large consumers, \$3. Oil gas, with 15 per cent. air, | 3 64 | 3 75 |
| Citizens' (Quincy), | 18.2 | 2 50 | Two dollars and fifty cents per M for houses, and \$2 for stores, offices, stores and public buildings; no discounts, | 2 22 | 2 13 |
| Citizens' (Wakefield), | 17.7 | 2 50 | Discounts if bills paid within 10 days: For consumers of 5,000 to 15,000 feet, 15 cents per M; 15,000 to 50,000 feet, 25 cents per M; 50,000 feet and over, 35 cents; for gas stoves, engines and other mechanical purposes, 50 cents per M, | 2 26 | 2 19 |

| | | | | | |
|--------------------------|-------|------|--|------|------|
| Clinton, | 18.7 | 2 50 | Discount 10 per cent. on bills paid within ten days. Large consumers supplied at \$2, but no discount. | 2 10 | 2 15 |
| Cottage City, | - | 2 20 | Discount 20 cents per M, if paid in 6 days. For fuel through separate meter, \$1 per M net. During November, December, January, February, March, and April, \$1 net per M. Water gas (non-illuminating), | 1 66 | 1 47 |
| Danvers, | 15.9 | 3 00 | Discounts: On monthly bills from \$1 to \$3, 10 per cent.; from \$3 to \$12, 16½ per cent.; \$12 and over, 25 per cent., | 2 35 | 2 37 |
| Dedham, | 17.6 | 2 50 | Discount 20 per cent., for payment before the 16th of the month, | 2 02 | 2 01 |
| Dorchester, | 23.9 | 1 70 | Discount 20 cents per M, on bills paid on or before the 12th of the month, | 1 50 | 1 52 |
| East Boston, | 17.41 | 1 75 | Discount 25 cents per M, on bills paid before the 15th of the month, | 1 76 | 1 72 |
| Easthampton, | 17.9 | 3 00 | Discount 63 per cent., making \$2.80 net. To the town, and consumers using 50,000 feet a year, the bills are made at \$2.50, with a discount of 4 per cent., making net price \$2.40. Largest consumers, \$2.25 net, | 2 53 | 2 57 |
| Fall River, | 22.9 | 1 70 | Discounts: consumers of 1,000 feet or less per month, 10 cents per M; over 1,000 feet and not over 10,000 feet, 30 cents per M; over 10,000 feet, 40 cents per M; to mills, 45 cents per M, | 1 53 | 1 45 |
| Fitchburg, | 18 0 | 2 00 | Large consumers, \$1.75, | 1 89 | 1 79 |
| Framingham, | - | 90 | To consumers of 1,000 to 50,000 feet per month, 60 cents per M; of more than 50,000 per month, 48 cents per M. Discount 16½ per cent. for payment before the 15th of the month. Non-illuminating water gas, | 51 | 49 |
| Gardner, | 51.9 | 6 00 | Discounts vary according to amount used from 10 to 33½ per cent., if paid by the 10th of the month. Pure oil gas, | - | 4 38 |
| Gloucester, | 18.1 | 2 00 | Discounts 25 per cent., if paid on or before the 15th of the month, | 1 60 | 1 53 |
| Greenfield, | 18.4 | 2 50 | On bills of \$2.50 per month, for dwellings 5 per cent. discount if paid in 5 days; on bills of \$2.50 for stores, 10 per cent., | 2 12 | 2 20 |
| Haverhill, | 24.6 | 1 50 | Discount 10 cents per M, if paid on or before the 10th. Day consumption for manufacturing purposes, \$1.25, | 1 40 | 1 41 |
| Holyoke, | 18.1 | 2 00 | Discounts: 35 per cent. to consumers of 360,000 feet, 25 per cent. to manufacturers and mills; 16½ per cent. to churches and consumers of \$25 per month; 12½ per cent. to all others. For gas engines, \$1.25, | 1 54 | 1 53 |
| Ipswich, | 24.9 | 3 50 | Oil gas, 33½ per cent. air, | 2 93 | 2 97 |
| Jamaica Plain, | 18.3 | 2 00 | Twenty cents per M discount on all bills paid within 15 days. City buildings 5 per cent. off net price, | 1 99 | 1 89 |
| Lawrence, | 19.7 | 1 60 | Twenty cents per M discount for less than 250,000 feet per year, if paid before the 16th of the month. Between 250,000 and 800,000 feet per year, \$1.50 less 10 cents. Over 800,000, \$1.30 net, | 1 42 | 1 43 |

| COMPANY. | Average Candle- power. | Gross Price. | REMARKS. | Average Price. | |
|----------------------------------|------------------------------|-----------------|---|-------------------|----------|
| | | | | 1891-92. | 1892-93. |
| Leominster, | 29.5 | \$4 00 | Oil gas, with 50 per cent. air. Discount 50 cents per M on monthly bills of 3,000 feet and over. | \$3 63 | \$3 76 |
| Lexington, | 25.6 | 6 00 | Discount 10 per cent. for payment by the 10th of the month. A few large consumers, special rates. Oil gas, with 33½ per cent. air. | 5 23 | 5 35 |
| Lowell, | 17.8 | 1 30 | Discount 20 cents per M, if paid within 5 days. | 1 10 | 1 10 |
| Lynn, | 19.0 | 1 80 | Discount 20 cents per M, for payment within 10 days. Gas engines \$1.00 per M net. | 1 47 | 1 39 |
| Malden, | 17.8 | 2 00 | Discount 20 cents per M, if paid by the 20th of the month. Factories and large consumers, 25 cents, 40 cents and 50 cents per M discount. | 1 77 | 1 78 |
| Manufacturers' (Fall River), . . | 18.5 | - | To consumers using less than 500 feet per month, \$1.80 per M; using 500 feet and less than 1,000 feet, \$1.70 per M; consumers of more than 1,000 feet, per month, \$1.40 per M. To Mills \$1.25 per M. | 1 43 | 1 37 |
| Marblehead, | 16.9 | 3 00 | Discounts: 10 per cent. on monthly bills of \$1 to \$3; 15½ per cent. on bills from \$3 to \$12, and 25 per cent. on bills over \$12. | 2 55 | 2 50 |
| Marlborough, | 18.3 | 2 50 | Discounts from 10 to 30 per cent. | 2 19 | 2 23 |
| Middleborough, | 28.4 | 2 75 | Discounts, 5 per cent. for cash, 10 per cent. to mills. Oil gas with 25 to 40 per cent. air. | 2 65 | 2 25 |
| Milford, | 17.5 | 2 00 | Bills amounting to \$5 per month, 5 per cent. discount; \$10 a month, 10 per cent.; \$50 a month, 15 per cent. | 1 84 | 1 84 |
| Nantucket, | 17.9 | 2 50 | Discounts: 10 cents per M, if paid on or before the 15th of the month; 20 cents per M to consumers of 4,000 feet. | 2 55 | 1 99 |
| Natick, | 17.6 | 2 00 | Less than 4,000 feet per month 10 per cent. discount; 4,000 feet or over per month 25 per cent. discount for payment by the 10th of the month. Certain large consumers, \$1.30 net. | 1 83 | 1 82 |
| New Bedford, | 19.7 | 1 80 | Discounts: 20 per cent. on bills of 1,000 feet or more per month; 10 per cent. on all less than 1,000 feet per month, if paid within ten days. | 1 78 | 1 47 |
| Newburyport, | 18.3 | 2 50 | Consumption of 100,000 feet per year, \$1.75 net; 200,000 feet, \$1.70; 300,000 feet, \$1.65; 400,000 feet, \$1.60; day consumption by special meter, \$1.50; general consumers, 20 cents per M discount for cash in 20 days. | 2 03 | 2 00 |
| Newton, | 17.6 | 2 00 | To some consumers, for mill consumption special rates. | 1 79 | 1 80 |
| North Adams, | 17.5 | 1 85 | To large consumers, 5 per cent. discount, if paid within 5 days. | 1 72 | 1 61 |
| Northampton, | 18.1 | 2 00 | Discount of 50 cents per M, paid on or before the 16th of the month. | 1 92 | 1 92 |
| North Attleborough, | 17.5 | 2 50 | | 2 00 | 2 00 |

| | | | | | | | |
|-----------------|------|------|--|--|---|------|------|
| Norwood, . | 2 25 | | | | If paid within 15 days, discount of 25 cents per M. | 2 28 | 2 00 |
| Pittsfield, . | 2 50 | 23.5 | | | Discounts: 10 per cent. on bills of less than 1,000 feet; 20 per cent. on bills of 1,000 feet and less than 25,000; 40 per cent. on bills of 25,000 feet or over, Special price to large consumers, | 1 89 | 1 88 |
| Plymouth, . | 2 50 | 17.9 | | | Discount 20 cents per M, if paid on or before the 12th of the month, | 2 08 | 1 94 |
| Roxbury, . | 1 70 | 23.7 | | | Discount 20 per cent, if paid on or before the 15th of the month; 25 per cent. on bills of 20,000 feet and over, per month, | 1 52 | 1 52 |
| Salem, . | 2 00 | 17.3 | | | Discount 20 cents per M, if paid on or before the 12th of the month, | 1 77 | 1 60 |
| South Boston, . | 1 70 | 17.9 | | | Discounts: 5 per cent., to consumers of 1,000 feet; 10 per cent. to consumers of 2,000 feet and over. Oil gas with 30 to 40 per cent. air, | 1 52 | 1 52 |
| Southbridge, . | 3 00 | 24.7 | | | 20 cents per M discount on all bills paid on or before the 10th day of the month, | 2 84 | 2 80 |
| Spencer, . | 1 60 | 19.0 | | | Discount 10 per cent., if paid by the 10th of the month. Pure oil gas, | 1 60 | 1 60 |
| Springfield, . | 1 60 | 18.2 | | | Over 125,000 feet per quarter; \$1.40 per M, | 1 69 | 1 66 |
| Stoughton, . | 5 50 | 40.4 | | | Discount 10 per cent., if paid by the 15th of the month, | 4 98 | 4 95 |
| Taunton, . | 1 50 | 17.7 | | | Public institutions, \$1.75, | 1 47 | 1 47 |
| Waltham, . | 2 00 | 17.3 | | | If more than 20,000 feet is used in year, \$2 15 per M for such excess. Gas engines per M, | 1 78 | 1 67 |
| Ware, . | 2 00 | 17.5 | | | \$2.00. Discount from each of these prices for payment within 5 days, 25 cents per M, | 2 23 | 1 88 |
| Webster, . | 2 50 | 18.4 | | | Discount 5 per cent., if paid before the 10th of the month, 5 per cent. additional on bills amounting to \$5.00 per month; some large consumers, \$5 per M net. Pure oil gas, | 2 31 | 2 50 |
| Westfield, . | 2 25 | 17.8 | | | Discount 20 cents, if paid on or before the 15th of the month, | 1 99 | 1 96 |
| Williamstown, . | 6 00 | 43.3 | | | Discount 30 cents per M, if paid on or before the 15th of the month, | 5 56 | 5 28 |
| Woburn, . | 1 80 | 19.2 | | | | 1 77 | 1 72 |
| Worcester, . | 1 70 | 19.5 | | | | 1 60 | 1 50 |

The average price paid by consumers for coal gas, to the companies selling annually more than 30,000,000 feet each, is \$1.27 per thousand feet. If the Boston and Bay State companies be excluded the average is \$1.49. The average price received by the remainder of the coal-gas companies is \$1.94, making an average for all of \$1.32 per thousand. The average price for oil gas is \$3.74 per thousand feet.

The average price paid for coal gas in 1886 was \$1.72; in 1887, \$1.66; in 1888, \$1.56; in 1889, \$1.45; in 1890, \$1.39; in 1891, \$1.31; in 1892, \$1.38; and in 1893, \$1.27.

The following table shows the amount of gas made in the year ending June 30, 1893, and in the year ending June 30, 1892; the amount sold by meter and to public lamps in both these years; the amount used at works and offices, with the amount of gas unaccounted for during the year ending June 30, 1893, and the percentage of unaccounted-for gas in both years.

NOTE. — The terms "coal gas" and "coal-gas companies" whenever used in the report are intended, unless otherwise qualified, to include all the companies except those that make their gas entirely from oil distilled in closed retorts externally fired.

Coal Gas.

| COMPANY. | Gas made. Year ending June 30, 1893. | Gas made. Year ending June 30, 1892. | Gas sold by Meter. Year ending June 30, 1893. | Gas sold by Meter. Year ending June 30, 1892. | Gas sold for Public Lamps. Year ending June 30, 1893. | Gas sold for Public Lamps. Year ending June 30, 1892. | Gas used at Works and Offices. Year ending June 30, 1893. | Gas unac- counted for. Year ending June 30, 1893. | Percent- age unac- counted for 1893. | Percent- age unac- counted for 1892. |
|---------------------------------|---|---|--|--|---|---|---|---|---|---|
| | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | | |
| Adams, | 5,860,000 | 5,320,000 | 4,549,400 | 4,653,900 | - | - | 20,000 | 1,390,600 | 22.23 | 19.96 |
| Amesbury, | 5,804,700 | 5,624,100 | 4,143,800 | 4,331,500 | 168,000 | 168,000 | 30,000 | 441,400 | 7.60 | 8.70 |
| Arlington, | 7,500,440 | 7,494,620 | 5,922,550 | 5,962,900 | - | - | 103,100 | 1,474,790 | 19.66 | 19.17 |
| Athol, | 3,579,500 | 3,110,100 | 3,296,300 | 2,773,300 | - | - | 115,000 | 161,000 | 4.49 | 4.72 |
| Attleborough, | 10,190,000 | 8,710,500 | 9,061,100 | 7,612,800 | - | - | 120,000 | 1,006,900 | 9.88 | 11.57 |
| Bay State, | 968,157,000 | 885,480,000 | 965,337,860 | 883,197,610 | - | - | 2,017,000 | 767,140 | 0.08 | 0.18 |
| Beverly, | 7,989,700 | 7,439,100 | 7,152,600 | 6,466,700 | 300 | 300 | 167,500 | 666,500 | 8.30 | 9.87 |
| Boston, | 1,220,220,600 | 1,397,890,700 | 1,152,729,100 | 1,141,348,200 | 39,193,380 | 41,277,460 | 8,445,100 | 26,099,020 | 2.05 | 1.84 |
| Brookline, | 50,600,000 | 23,905,700 | 16,299,600 | 18,534,500 | - | - | 500,000 | 3,768,460 | 18.29 | 22.31 |
| Brookline, | 58,755,200 | 76,675,200 | 60,469,000 | 54,580,200 | 11,483,041 | 11,080,212 | 223,300 | 16,587,869 | 18.69 | 12.80 |
| Cambridge, | 182,908,200 | 141,907,900 | 131,676,500 | 121,344,700 | 5,434,150 | 7,564,378 | 1,294,500 | 14,377,050 | 9.40 | 8.42 |
| Charlestown, | 99,695,000 | 86,106,000 | 76,464,897 | 70,392,183 | 8,932,726 | 9,347,660 | 767,600 | 13,574,777 | 13.61 | 7.84 |
| Chelsea, | 40,082,000 | 36,140,000 | 31,392,740 | 30,296,200 | - | - | 327,500 | 8,431,760 | 21.08 | 15.23 |
| Chicopee, | 9,023,500 | 10,080,200 | 7,690,700 | 8,317,400 | 29,348 | 39,568 | 100,000 | 968,452 | 10.73 | 13.77 |
| Citizens (Quincy), | 9,267,100 | 8,634,000 | 5,838,400 | 5,849,200 | 1,000,000 | 1,000,000 | 298,100 | 2,132,600 | 23.12 | 19.50 |
| Citizens (Wakefield), | 6,933,640 | 6,442,100 | 5,629,758 | 4,638,520 | 100,732 | 560,300 | 62,000 | 1,127,182 | 16.10 | 18.56 |
| Clinton, | 8,806,300 | 8,460,700 | 5,815,900 | 6,210,100 | - | - | 285,900 | 2,725,935 | 30.95 | 22.89 |
| Cottage City, | 3,652,000 | 3,469,900 | 2,110,900 | 2,178,300 | 628,600 | 565,500 | - | 912,500 | 24.98 | 21.19 |
| Danvers, | 2,813,600 | 2,685,000 | 2,336,800 | 2,105,000 | - | - | 17,400 | 459,400 | 17.49 | 19.83 |
| Dedham, | 7,866,320 | 6,972,000 | 6,012,800 | 5,302,300 | - | - | 235,300 | 1,603,610 | 20.33 | 20.37 |
| Dorchester, | 1,827,679,400 | 1,722,257,400 | 80,076,200 | 46,566,900 | 22,502,000 | 22,690,500 | 101,200 | - | - | - |
| East Boston, | 47,469,000 | 44,402,800 | 32,615,800 | 30,195,300 | 8,992,887 | 9,274,123 | 325,700 | 6,492,248 | 11.57 | 10.48 |
| Easthampton, | 4,320,450 | 3,865,900 | 3,401,500 | 3,081,800 | - | - | 81,200 | 837,750 | 19.39 | 17.94 |
| Fall River, | 59,370,400 | 54,202,615 | 54,192,100 | 49,319,300 | 1,009,777 | 2,098,300 | 322,100 | 3,855,823 | 6.49 | 6.35 |
| Fitchburg, | 22,333,900 | 19,904,500 | 19,734,900 | 17,083,500 | 208,000 | 466,000 | 640,000 | 1,695,400 | 7.59 | 8.60 |
| Frammingham, | 13,290,700 | 8,285,400 | 11,361,900 | 6,749,800 | - | - | 862,800 | 984,000 | 7.43 | 9.36 |

1 Gas bought.

Coal Gas — Concluded.

| COMPANY. | Gas made. Year ending June 30, 1893. | Gas made. Year ending June 30, 1892. | Gas sold by Meter. Year ending June 30, 1893. | Gas sold by Meter. Year ending June 30, 1892. | Gas sold for Public Lamps. Year ending June 30, 1893. | Gas sold for Public Lamps. Year ending June 30, 1892. | Gas used at Works and Offices. Year ending June 30, 1893. | Gas unac- counted for. Year ending June 30, 1893. | Percent- age unac- counted for, 1893. | Percent- age unac- counted for, 1892. |
|--|---|---|--|--|---|---|---|---|--|--|
| | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | | |
| Gloucester, | 19,266,300 | 17,379,800 | 17,328,000 | 15,383,000 | 853,260 | 791,200 | 100,000 | 945,440 | 4.90 | 5.95 |
| Greenfield, | 4,340,700 | 4,153,900 | 3,785,800 | 3,473,800 | - | - | 76,500 | 478,400 | 11.02 | 14.36 |
| Haverhill, | 68,854,000 | 57,138,000 | 54,150,000 | 48,540,200 | 4,331,900 | 4,338,800 | 700,000 | 7,638,200 | 11.42 | 6.21 |
| Holyoke, | 60,222,900 | 56,243,800 | 54,316,800 | 50,505,300 | 256,268 | 290,416 | 390,300 | 5,265,728 | 8.74 | 8.84 |
| Jamaica Plain, | 49,635,000 | 45,066,600 | 29,444,250 | 27,957,895 | 14,292,329 | 12,561,149 | 500,000 | 5,463,016 | 11.00 | 8.98 |
| Lawrence, | 82,614,700 | 78,680,200 | 74,622,557 | 70,559,570 | - | - | 781,350 | 7,205,196 | 8.72 | 9.63 |
| Lowell, | 283,632,000 | 239,494,000 | 258,555,200 | 233,780,400 | 6,882,900 | 7,428,400 | 2,651,900 | 15,327,000 | 8.47 | 6.06 |
| Lynn, | 99,075,700 | 84,124,100 | 83,586,500 | 75,171,400 | - | - | 1,622,800 | 8,666,400 | 8.73 | 8.23 |
| Malden, | 46,158,400 | 40,403,700 | 39,501,316 | 36,360,800 | 8,000 | 8,000 | 308,900 | 6,113,884 | 13.24 | 9.27 |
| Manufacturers' (Fall River), | 16,314,500 | 15,044,300 | 14,008,500 | 12,830,300 | 223,300 | 514,200 | 134,700 | 1,433,000 | 11.85 | 10.31 |
| Marblehead, | 6,650,200 | 4,713,400 | 3,418,140 | 2,942,000 | 312,000 | 222,500 | 164,400 | 1,829,160 | 32.37 | 25.70 |
| Marlborough, | 6,312,800 | 4,397,800 | 6,365,400 | 3,352,000 | 394,500 | 22,000 | 140,000 | 418,100 | 6.59 | 21.65 |
| Millford, | 12,383,800 | 10,380,000 | 10,444,400 | 8,939,400 | 500,000 | 408,000 | 66,000 | 1,388,400 | 11.21 | 9.26 |
| Nantucket, | 2,721,190 | 2,280,900 | 1,770,700 | 1,422,700 | 400,000 | 456,000 | 70,000 | 479,990 | 17.64 | 14.99 |
| Natick, | 3,243,800 | 3,756,700 | 2,653,400 | 2,789,000 | 240,000 | 375,000 | 160,000 | 197,400 | 6.08 | 11.72 |
| New Bedford, | 46,696,300 | 42,458,000 | 35,739,300 | 33,115,100 | 6,119,487 | 4,875,897 | 446,000 | 6,120,113 | 10.96 | 8.99 |
| Newburyport, | 10,830,300 | 9,725,900 | 8,183,500 | 8,232,600 | - | - | 200,000 | 1,947,890 | 18.85 | 13.19 |
| Newton, | 65,046,700 | 62,458,700 | 62,999,800 | 49,063,500 | 6,162,000 | 6,901,400 | 196,500 | 6,188,200 | 9.44 | 11.34 |
| North Adams, | 23,092,800 | 21,184,000 | 18,532,800 | 16,397,700 | 350,000 | 360,000 | 560,000 | 4,259,800 | 17.97 | 18.61 |
| Northampton, | 15,671,100 | 14,398,900 | 13,063,050 | 11,561,300 | - | - | 128,000 | 2,389,880 | 15.35 | 18.43 |
| North Attleborough, | 14,313,500 | 13,917,700 | 12,961,000 | 12,410,800 | 97,200 | 98,500 | 166,800 | 1,014,706 | 7.09 | 8.69 |
| Norwood, | - | - | 1,903,690 | 1,674,100 | - | - | - | - | - | - |
| Otis Co. (Ware), | 4,706,140 | 4,312,040 | 2,437,000 | 1,834,000 | 5,136 | 2,916 | 76,000 | 460,744 | 9.79 | 7.06 |
| Pittsfield, | 15,495,000 | 15,291,000 | 13,413,400 | 13,361,850 | - | - | 225,000 | 1,816,600 | 11.73 | 11.14 |
| Plymouth, | 5,089,120 | 4,422,410 | 4,692,700 | 4,080,400 | - | - | 112,000 | 883,320 | 7.13 | 6.42 |

The following table shows the daily capacity of the works, June 30, 1893, and the greatest and least day's output during the year ending with that date, for each of the companies :—

| COMPANY. | Daily Capacity of Works. | Greatest Output. | Date. | Least Output. | Date. |
|------------------------------------|--------------------------|------------------|----------|---------------|----------|
| | Feet. | Feet. | | Feet. | |
| Adams, . . . | 50,000 | — | — | — | — |
| Amesbury, . . . | 100,000 | 49,000 | Dec. 18, | 9,000 | July 15. |
| Amherst, . . . | 6,000 | 6,000 | — | 1,500 | — |
| Arlington, . . . | 500,000 | 36,160 | Dec. 24, | 6,370 | Aug. 2. |
| Athol, . . . | 75,000 | 26,700 | Dec. 24, | 3,400 | June 17. |
| Attleborough, . . . | 100,000 | 51,000 | Jan. 9, | 16,000 | July 13. |
| Bay State, . . . | 4,000,000 | 4,539,000 | Nov. 2, | 457,000 | July 10. |
| Beverly, . . . | 50,000 | 47,400 | Dec. 14, | 8,700 | July 24. |
| Boston, . . . | 6,000,000 | 5,895,000 | Dec. 8, | 1,046,000 | July 24. |
| Brockton, . . . | 100,000 | 125,400 | Dec. 24, | 31,355 | July 4. |
| Brookline, . . . | 500,000 | 408,000 | Dec. 24, | 117,000 | July 17. |
| Cambridge, . . . | 1,000,000 | 723,000 | Dec. 8, | 130,800 | July 24. |
| Charlestown, . . . | 500,000 | 450,000 | Dec. 24, | 160,000 | July 11. |
| Chelsea, . . . | 250,000 | 192,000 | Dec. 15, | 48,000 | July 25. |
| Chicopee, . . . | 150,000 | 61,900 | Dec. 8, | 10,900 | July 13. |
| Citizens' (Quincy), . . . | 70,000 | 46,000 | Oct. 26, | 11,700 | July 25. |
| Citizens' (Wakefield), . . . | 65,000 | — | — | — | — |
| Clinton, . . . | 90,000 | 49,500 | Feb. 2, | 9,200 | June 20. |
| Cottage City, . . . | 60,000 | 38,000 | Aug. 27, | 900 | Feb. 10. |
| Danvers, . . . | 30,000 | 15,644 | Jan. 11, | 3,004 | July 25. |
| Dedham, . . . | 75,000 | 42,730 | Jan. 3, | 10,160 | July 17. |
| Dorchester, . . . | 300,000 | 379,310 | Dec. 24, | 96,176 | July 25. |
| East Boston, . . . | 400,000 | 202,112 | Dec. 10, | 60,861 | July 10. |
| Easthampton, . . . | 30,000 | 31,532 | Dec. 15, | 4,500 | June 13. |
| Fall River, . . . | 500,000 | 340,600 | Nov. 10, | 60,200 | July 10. |
| Fitchburg, . . . | 150,000 | 120,700 | Dec. 21, | 21,700 | July 10. |
| Framingham, . . . | 250,000 | 67,200 | Dec. 24, | 14,100 | July 3. |
| Gloucester, . . . | 125,000 | 112,300 | Dec. 24, | 15,800 | July 10. |
| Greenfield, . . . | 60,000 | 25,700 | Nov. 6, | 4,500 | July 11. |
| Haverhill, . . . | 400,000 | 379,000 | Dec. 28, | 24,000 | July 4. |
| Holyoke, . . . | 500,000 | 332,620 | Dec. 8, | 68,247 | July 2. |
| Ipswich, . . . | — | 14,000 | Dec. 24, | 1,600 | July 4. |
| Jamaica Plain, . . . | 400,000 | 208,685 | Dec. 25, | 76,000 | July 17. |
| Lawrence, . . . | 1,000,000 | 447,825 | Dec. 8, | 73,615 | July 10. |
| Lowell, . . . | 1,000,000 | 1,624,000 | Dec. 8, | 250,000 | July 24. |
| Lynn, . . . | 700,000 | 476,900 | Dec. 14, | 100,700 | July 24. |
| Malden, . . . | 350,000 | 215,200 | Jan. 2, | 45,500 | July 28. |
| Manufacturers' (Fall River), . . . | 200,000 | 150,000 | Dec. 9, | 11,700 | June 11. |
| Marblehead, . . . | 55,000 | 25,600 | Dec. 21, | 7,000 | July 6. |
| Marlborough, . . . | 46,000 | 40,000 | Dec. 24, | 3,700 | Aug. 7. |
| Milford, . . . | 80,000 | 64,380 | Dec. 15, | 13,370 | June 11. |
| Nantucket, . . . | 30,000 | 13,830 | Aug. 11, | 3,720 | Apr. 24. |
| Natick, . . . | 35,000 | 196,000 | Jan. 3, | 4,000 | July 10. |
| New Bedford, . . . | 600,000 | 213,200 | Dec. 20, | 63,200 | July 7. |
| Newburyport, . . . | 100,000 | 52,870 | Dec. 15, | 8,390 | July 4. |
| Newton, . . . | 400,000 | 324,000 | Dec. 25, | 69,500 | July 5. |

| COMPANY. | Daily Capacity of Works. | Greatest Output. | Date. | Least Output. | Date. |
|-------------------------|--------------------------------|---------------------|----------|------------------|----------|
| | Feet. | Feet. | | Feet. | |
| North Adams, . . . | 130,000 | 122,300 | Dec. 16, | 19,400 | July 5. |
| Northampton, . . . | 100,000 | 80,180 | Dec. 8, | 13,301 | Aug. 4. |
| North Attleborough, . . | 110,000 | 74,173 | Oct. 28, | 10,076 | July 10. |
| Otis Co. (Ware), . . . | 70,000 | 29,660 | Jan. 2, | 4,634 | July 10. |
| Pittsfield, . . . | 240,000 | 81,000 | Nov. 29, | 21,000 | July 17. |
| Plymouth, . . . | 58,000 | 25,720 | Dec. 14, | 5,250 | June 12. |
| Roxbury, . . . | 500,000 | 818,357 | Dec. 24, | 218,064 | July 24. |
| Salem, . . . | 330,000 | 210,800 | Dec. 24, | 33,000 | July 10. |
| South Boston, . . . | 425,000 | 408,738 | Dec. 24, | 109,161 | July 10. |
| Spencer, . . . | 225,000 | 52,600 | Dec. 23, | 11,300 | Aug. 4. |
| Springfield, . . . | 360,000 | 467,000 | Dec. 24, | 109,000 | July 11. |
| Taunton, . . . | 300,000 | 250,000 | Dec. 20, | 50,000 | July 20. |
| Waltham, . . . | 200,000 | 152,100 | Dec. 14, | 31,300 | July 10. |
| Webster, . . . | 24,000 | 14,500 | Dec. 24, | 3,000 | Apr. 15. |
| Westfield, . . . | 62,000 | 54,200 | Dec. 9, | 9,100 | July 25. |
| Woburn, . . . | 30,000 | 40,000 | Dec. 25, | 10,000 | July 4. |
| Worcester, . . . | 1,500,000 | 820,000 | Jan. 2, | 143,000 | July 23. |

The following tables show the total quantity of gas sold during the year ending June 30, 1893, the percentage of increase in sales over the previous year; the capital (including bonds) per thousand feet sold, omitting those companies which have electric light plants; the average price received for all gas sold during the year ending June 30, 1893, and the average price the year previous:—

Coal-gas Companies.

| COMPANY. | Total Sales of Gas. | Increase over 1891-92. Per Cent | Capital per M sold, includ- ing Bonds. | Average Price received per M sold, 1892-93. | Average Price received per M sold, 1891-92. |
|--|------------------------|---------------------------------------|--|--|--|
| | Feet. | | | | |
| Adams, | 4,549,400 | .0223* | \$3.803 | \$2 38 | \$2 41 |
| Amesbury, | 5,311,800 | .0418 | 11.322 | 1 76 | 1 76 |
| Arlington, | 5,922,550 | .0067* | 11.819 | 2 50 | 2 75 |
| Athol, | 3,296,300 | .1886 | - | 2 33 | 2 60 |
| Attleborough, | 9,061,100 | .1902 | 5.128 | 2 00 | 2 00 |
| Bay State, | 965,337,860 | .0930 | 5.187 | 1 23 | 1 30 |
| Beverly, | 7,132,900 | .0965 | - | 2 31 | 2 31 |
| Boston, | 1,191,985,480 | .1328* | 2.242 | 1 25 | 1 28 |
| Brockton, | 16,299,600 | .1110* | 17.086 | 1 97 | 2 03 |
| Brookline, | 71,942,041 | .0955 | - | 1 90 | 1 90 |
| Cambridge, | 137,110,650 | .0636 | 5.105 | 1 52 | 1 59 |
| Charlestown, | 85,387,623 | .0709 | - | 1 55 | 1 69 |
| Chelsea, | 31,392,740 | .0371 | - | 1 90 | 1 84 |
| Chicopee, | 7,960,048 | .0697* | 3.769 | 1 85 | 1 85 |
| Citizens' (Quincy), | 6,838,400 | .0015* | 8.774 | 2 01 | 2 12 |
| Citizens' (Wakefield), | 5,736,488 | .1023 | - | 2 20 | 2 25 |
| Clinton, | 5,815,900 | .0635* | - | 2 15 | 2 10 |
| Cottage City, | 2,739,500 | .0025 | - | 1 47 | 1 66 |
| Danvers, | 2,336,800 | .1101 | 8.558 | 2 37 | 2 35 |
| Dedham, | 6,012,300 | .1338 | 18.046 | 2 01 | 2 03 |
| Dorchester, | 82,578,200 | .1429 | 4.844 | 1 52 | 1 50 |
| East Boston, | 41,608,687 | .0541 | 5.287 | 1 69 | 1 76 |
| Easthampton, | 3,401,500 | .1037 | - | 2 57 | 2 63 |
| Fall River, | 55,201,877 | .0949 | 5.668 | 1 45 | 1 53 |
| Fitchburg, | 20,002,900 | .1398 | - | 1 79 | 1 89 |
| Frammingham, | 11,361,900 | .6833 | 14.319 | 2 049 | 2 051 |
| Gloucester, | 18,211,260 | .1265 | 4.393 | 1 52 | 1 60 |
| Greenfield, | 3,785,600 | .0997 | 13.472 | 2 20 | 2 11 |
| Haverhill, | 58,482,800 | .1050 | 1.923 | 1 41 | 1 38 |
| Holyoke, | 53,926,468 | .0728 | - | 1 53 | 1 54 |
| Jamaica Plain, | 43,646,579 | .0772 | 6.186 | 1 85 | 1 99 |
| Lawrence, | 74,622,557 | .0576 | - | 1 41 | 1 42 |
| Lowell, | 265,438,100 | .1004 | 1.583 | 1 10 | 1 10 |
| Lynn, | 88,586,500 | .1784 | - | 1 39 | 1 46 |
| Malden, | 39,509,316 | .0863 | 6.186 | 1 77 | 1 77 |
| Manufacturers' (Fall River), | 14,246,800 | .0676 | 3.509 | 1 37 | 1 43 |

* Decrease.

† From sales to general consumers only.

‡ Non-illuminating.

| COMPANY. | Total Sales of Gas. | Increase over 1891-92. Per Cent. | Capital per M sold, includ- ing Bonds. | Average Price received per M sold, 1892-93. | Average Price received per M sold, 1891-92. |
|-------------------------|------------------------|--|--|--|--|
| | Feet. | | | | |
| Marblehead, | 3,730,140 | .1087 | \$12.763 | \$2 48 | \$2 55 |
| Marlborough, | 5,759,900 | .7063 | 8.681 | 2 28 | 2 19 |
| Milford, | 10,944,400 | .1708 | 6.606 | 1 82 | 2 00 |
| Nantucket, | 2,170,700 | .1550 | 17.512 | 1 98 | 2 55 |
| Natick, | 2,893,400 | .0935* | 10.368 | 1 76 | 1 83 |
| New Bedford, | 40,858,787 | .0755 | - | 1 54 | 1 82 |
| Newburyport, | 8,183,500 | .0059* | - | 2 00 | 2 02 |
| Newton, | 59,158,600 | .0763 | - | 1 79 | 1 79 |
| North Adams, | 18,882,800 | .1272 | - | 1 60 | 1 72 |
| Northampton, | 13,063,050 | .1308 | 4.450 | 1 92 | 1 92 |
| North Attleborough, . . | 13,052,200 | .0434 | 7.816 | 2 00 | 2 00 |
| Norwood, | 1,903,590 | .2088 | 6.303 | 2 00 | 2 28 |
| Otis Co. (Ware), . . . | 2,542,136 | .3538* | - | 1 88 | 2 23 |
| Pittsfield, | 13,443,400 | .0061 | 4.649 | 1 88 | 1 69 |
| Plymouth, | 4,592,700 | .1255 | 9.036 | 1 94 | 2 06 |
| Roxbury, | 178,039,842 | .0819 | 3.369 | 1 52 | 1 52 |
| Salem, | 35,570,635 | .0066 | 8.434 | 1 61 | 1 77 |
| South Boston, | 76,873,560 | .0314 | 5.723 | 1 52 | 1 52 |
| Spencer, | 8,230,300 | .0993* | - | 1 60 | 1 61 |
| Springfield, | 88,782,100 | .0452 | 5.913 | 1 66 | 1 69 |
| Taunton, | 42,190,900 | .1003 | 1.896 | 1 47 | 1 47 |
| Waltham, | 28,088,900 | .0361 | - | 1 72 | 1 78 |
| Webster, | 1,586,400 | .0012 | - | 2 50 | 2 31 |
| Westfield, | 7,841,033 | .1360 | - | 1 96 | 1 99 |
| Woburn, | 8,722,400 | .1069 | 5 170 | 1 72 | 1 77 |
| Worcester, | 146,883,000 | .0493 | 4.085 | 1 50 | 1 50 |

Oil-gas Companies.

| | | | | | |
|-------------------------|-----------|--------|----------|--------|--------|
| Amherst, | 873,236 | .0664 | \$49.815 | \$5 18 | \$5 28 |
| Chicopee Falls, | 1,002,625 | .0056* | - | 3 75 | 3 54 |
| Gardner, | 1,681,300 | - | - | 4 38 | - |
| Ipswich, | 1,777,000 | .0194 | 13 731 | 2 97 | 2 93 |
| Leominster, | 1,971,080 | .0492* | 25.367 | 3 76 | 3 63 |
| Lexington, | 1,022,500 | .0869* | 48.204 | 4 54 | 4 24 |
| Middleborough, | 1,400,500 | .0035 | - | 2 25 | 2 65 |
| Southbridge, | 1,405,050 | .1516 | - | 2 80 | 2 84 |
| Stoughton, | 532,000 | .2091 | - | 4 95 | 4 98 |
| Williamstown, | 690,500 | .4163 | 49.890 | 5 38 | 5 56 |

* Decrease.

1 Gas used in company's mills not included in the computation.

The following tables show the capital (including bonds), the gas sold, the gas unaccounted for, and the number of consumers per mile of main; also the gas sold per consumer and per meter light. Where capital is employed for both gas and electric light, the amount per mile of main is omitted.

Coal-gas Companies.

| COMPANY. | PER MILE OF MAIN. | | | | Gas sold per Consumer. | Gas sold per Meter Light. |
|------------------------------------|-------------------|-------------------------|----------------------|----------------------|-------------------------|---------------------------|
| | Capital. | Gas sold. | Gas unaccounted for. | Number of Consumers. | | |
| | | Feet. | Feet. | | Feet. | Feet. |
| Adams, . . . | \$3,460 00 | 909,880 | 260,120 | 27.0 | 34,465 | 3,441 |
| Amesbury, . . | 9,460 17 | 835,584 | 69,435 | 30.2 | 26,790 | 2,391 |
| Arlington, . . | 3,176 04 | 268,711 | 66,914 | 20.3 | 13,190 | 2,669 |
| Athol, . . . | - | 961,020 | 46,938 | 45.1 | 21,266 | 3,059 |
| Attleborough, . | 10,162 07 | 1,984,472 | 220,521 | 62.4 | 31,793 | 6,444 |
| Bay State, . . | 321,352 93 | 61,956,084 ¹ | 49,235 | 3.0 | 20,111,205 ² | 6,503 |
| Beverly, . . . | - | 967,041 | 90,361 | 76.5 | 12,624 | 2,623 |
| Boston, . . . | 20,202 82 | 8,985,623 | 189,205 | 231.6 | 37,623 | 3,701 |
| Brocton, . . . | 13,787 13 | 806,911 | 186,554 | 50.6 | 15,949 | 2,683 |
| Brookline, . . | - | 800,512 | 184,576 | 27.3 | 24,557 | 3,191 |
| Cambridge, . . | 7,916 22 | 1,550,569 | 162,588 | 74.4 | 20,008 | 3,656 |
| Charlestown, . . | - | 2,000,647 | 318,059 | 106.3 | 16,848 | 3,510 |
| Chelsea, . . . | - | 865,529 | 232,472 | 46.0 | 18,809 | 3,901 |
| Chicopee, . . . | 6,315 79 | 1,675,799 | 203,884 | 47.3 | 35,247 | 3,222 |
| Citizens' (Quincy), . | 5,168 49 | 589,111 | 183,718 | 34.1 | 14,744 | 2,668 |
| Citizens' (Wakefield), | - | 304,420 | 59,547 | 17.0 | 17,484 | 2,091 |
| Clinton, . . . | - | 1,265,151 | 592,981 | 52.2 | 23,642 | 1,716 |
| Cottage City, . . | - | 1,194,723 | 397,950 | 80.0 | 11,472 | 2,883 |
| Danvers, . . . | 4,228 33 | 494,038 | 97,124 | 29.1 | 16,894 | 2,144 |
| Dedham, . . . | 7,369 42 | 408,361 | 108,918 | 21.8 | 18,730 | 2,479 |
| Dorchester, . . | 5,940 44 | 1,226,378 | - | 66.0 | 13,523 | 2,706 |
| East Boston, . . | 10,521 29 | 1,989,893 | 262,661 | 86.5 | 18,030 | 4,650 |
| Easthampton, . . | - | 932,940 | 229,772 | 48.5 | 19,217 | 1,956 |
| Fall River, . . | 13,001 26 | 2,492,183 | 174,078 | 81.5 | 29,990 | 2,662 |
| Fitchburg, . . . | - | 1,318,234 | 111,730 | 52.1 | 24,917 | 3,621 |
| Framingham, . . | 27,295 63 | 1,906,359 | 165,100 | 39.0 | 48,763 | 4,878 |
| Gloucester, . . | 7,490 63 | 1,705,174 | 88,524 | 70.8 | 22,890 | 4,941 |
| Greenfield, . . | 10,185 74 | 756,061 | 95,546 | 49.7 | 15,203 | 3,544 |
| Haverhill, . . . | 4,472 80 | 2,325,174 | 303,681 | 111.4 | 19,319 | 3,262 |
| Holyoke, . . . | - | 2,382,791 | 230,456 | 75.6 | 31,342 | 3,899 |
| Jamaica Plain, . . | 7,348 94 | 1,187,984 | 148,694 | 48.8 | 16,404 | 3,155 |
| Lawrence, . . . | - | 1,905,483 | 183,984 | 71.6 | 28,789 | 4,242 |
| Lowell, . . . | 5,876 40 | 3,119,645 | 182,486 | 107.1 | 28,359 | 4,201 |
| Lynn, . . . | - | 2,500,813 | 244,372 | 99.3 | 25,174 | 4,599 |
| Malden, . . . | 3,699 94 | 598,127 | 92,557 | 37.0 | 16,130 | 3,287 |
| Manufacturers' (Fall River), . . . | 10,256 41 | 2,922,421 | 396,513 | 64.0 | 45,130 | 2,445 |

¹ Based on total output.

² Based on sales to general consumers.

| COMPANY. | PER MILE OF MAIN. | | | | Gas sold per Consumer. | Gas sold per Meter Light. |
|---------------------------|-------------------|-----------|----------------------|----------------------|------------------------|---------------------------|
| | Capital. | Gas sold. | Gas unaccounted for. | Number of Consumers. | | |
| | | Feet. | Feet. | | Feet. | Feet. |
| Marblehead, . . . | 5,885 27 | 462,166 | 226,633 | 28.6 | 14,797 | 2,354 |
| Marlborough, . . . | 13,178 71 | 1,518,160 | 109,673 | 57.4 | 24,612 | 2,846 |
| Milford, . . . | 9,103 50 | 1,378,041 | 174,817 | 61.0 | 21,535 | 3,198 |
| Nantucket, . . . | 7,843 62 | 447,912 | 99,220 | 33.2 | 10,994 | 2,897 |
| Natick, . . . | 6,410 25 | 618,247 | 42,179 | 41.0 | 13,820 | 1,788 |
| New Bedford, . . . | - | 1,338,315 | 167,685 | 80.1 | 14,611 | 2,808 |
| Newburyport, . . . | - | 779,381 | 185,513 | 46.4 | 16,769 | 2,912 |
| Newton, . . . | - | 832,828 | 87,317 | 37.4 | 19,977 | 3,216 |
| North Adams, . . . | - | 1,814,782 | 409,399 | 56.8 | 31,305 | 4,223 |
| Northampton, . . . | \$5,310 87 | 1,198,897 | 218,833 | 52.5 | 22,758 | 3,251 |
| North Attleborough, . . . | 10,846 89 | 1,387,793 | 107,889 | 44.0 | 31,306 | 4,664 |
| Norwood, . . . | 2,827 69 | 456,448 | - | 14.1 | 32,284 | 2,494 |
| Otis Co. (Ware), . . . | - | 210,441 | 38,141 | 17.1 | 12,256 | 1,401 |
| Pittsfield, . . . | 7,847 14 | 1,688,021 | 228,101 | 83.2 | 20,276 | 4,175 |
| Plymouth, . . . | 11,007 95 | 1,218,222 | 101,676 | 64.4 | 18,900 | 2,647 |
| Roxbury, . . . | 8,086 58 | 2,399,827 | 30,052 | 117.9 | 17,489 | 3,360 |
| Salem, . . . | 10,699 00 | 1,268,567 | 183,258 | 95 1 | 13,275 | 2,770 |
| South Boston, . . . | 14,260 25 | 2,491,452 | 293,192 | 90.8 | 24,730 | 4,939 |
| Spencer, . . . | - | 630,288 | 118,249 | 38.2 | 16,493 | 3,786 |
| Springfield, . . . | 11,206 63 | 1,864,700 | 138,427 | 93.0 | 19,865 | 3,460 |
| Taunton, . . . | 3,492 38 | 1,841,834 | 97,162 | 63 3 | 28,040 | 3,557 |
| Waltham, . . . | - | 1,279,327 | 177,837 | 51.0 | 24,094 | 3,875 |
| Weberster, . . . | - | 403,254 | 103,785 | 34 3 | 11,751 | 1,813 |
| Westfield, . . . | - | 1,255,449 | 109,739 | 60.2 | 20,445 | 3,695 |
| Woburn, . . . | 6,618 72 | 1,280,070 | 65,248 | 69 4 | 18,441 | 3,214 |
| Worcester, . . . | 9,876 54 | 2,417,827 | 217,600 | 90.1 | 26,585 | 5,396 |

Oil-gas Companies.

| | | | | | | |
|-----------------------|------------|---------|--------|------|---------|-------|
| Amherst, . . . | - | 192,767 | - | 28.6 | 59,356 | 1,416 |
| Chicopee Falls, . . . | - | 706,074 | - | 72.5 | 9,734 | 1,756 |
| Gardner, . . . | - | 157,775 | - | 16.1 | 9,775 | 2,405 |
| Ipswich, . . . | \$8,918 13 | 649,489 | - | 33.9 | 18,625 | 2,040 |
| Leominster, . . . | 6,821 28 | 268,969 | 21,981 | 30.2 | 8,878 | 1,835 |
| Lexington, . . . | - | 274,644 | - | 31.4 | 6,175 | 1,550 |
| Middleborough, . . . | - | 590,928 | 41,672 | 45.9 | 112,848 | 1,629 |
| Southbridge, . . . | - | 651,390 | - | 96.8 | 6,722 | 1,191 |
| Stoughton, . . . | - | 135,059 | - | 22.8 | 5,911 | 1,705 |
| Williamstown, . . . | 9,842 57 | 197,286 | 2,714 | 21 4 | 8,806 | 2,334 |

The following table shows the number of tons of coal carbonized in 1891-92 and 1892-93, the kind and quantities of enricher used by the various coal-gas companies, and the percentage of cost of coal received from residuals:—

| COMPANY. | Number of Tons of Coal carbon- ized, Year ending June 30, 1892. | Number of Tons of Coal carbon- ized, Year ending June 30, 1893. | ENRICHERS USED. | Cannel. Tons. | Naphtha. Gallons. | Oil. Gallons. | Percentage of cost of Coal received from Resid- ual Products. |
|----------------------------------|--|--|-----------------------|------------------|----------------------|------------------|---|
| Adams, | 663 | 656 | Cannel, | 50 | - | - | 23.19 |
| Arlington, | 700 | 730 | Gas oil, | - | - | 583 | 24.40 |
| Attleborough, | 1,003 | 1,138 | - | - | - | - | 33.08 |
| Beverly, | 746 | 761 | Gas oil, | - | - | 56 bbls. | 34.50 |
| Boston, | 43,231 | 31,806 | Cannel, | 123 | - | - | 41.20 |
| Brookton, | 2,358 | 1,256 | Gas oil, | - | - | 43,763 | 40.54 |
| Brookline, | 7,024 | 8,116 | Gas oil, | - | - | 26,728 | 60.46 |
| Cambridge, | 12,114 | 13,227 | Oil, | - | - | 76,090 | 44.74 |
| Charlestown, | 6,773 | 7,337 | Naphtha, ^s | - | 4 | - | 55.91 |
| Chelsea, | 3,685 | 3,861 | Cannel and gas oil, | 30 | - | 11,000 | 39.66 |
| Chicopee, | 737 | 5 | - | - | - | - | - |
| Citizens' (Quincy), | 861 | 862 | Naphtha, | - | 420 | - | 34.78 |
| Citizens' (Wakefield), | 926 | 882 | Crude oil, | - | - | 31.14 | 31.14 |
| Clinton, | 915 | 967 | Oil, | - | - | 624 | 17.96 |
| Danvers, | 282 | 291 | Fuel oil, | - | - | 1,405 | 16.07 |
| Dedham, | 689 | 795 | Crude oil, | - | - | 4,485 | 25.98 |
| East Boston, | 4,318 | 4,450 | Gas oil, | - | - | 22,273 | 48.43 |
| Easthampton, | 853 | 845 | Cannel, Lima oil, | 30 | - | 1,472 | 25.24 |
| Fitchburg, | 1,906 | 1,934 | Cannel, gas oil, | 30 | - | 5,153 | 46.96 |
| Gloucester, | 1,552 | 1,731 | Gas oil, | - | - | 9,072 | 46.32 |
| Greenfield, | 399 | 345 | Cannel, | 351 | - | - | 20.92 |
| Haverhill, | 3,906 | 3,180 | Cannel, naphtha, | 20 | 4 | - | 12.63 |
| Holyoke, | 4,903 | 5,425 | Crude petroleum, | - | - | 16,085 | 44.22 |

| Jamaica Plain, | 4,308 | 4,924 | Cannel and naphtha, | 36 | 12,513 | 45.34 |
|------------------------------|-------|-------|----------------------------------|------------|--------|-------|
| Lawrence, | 2,654 | 5,922 | Cannel, crude oil, | 1,600 lbs. | 2,525 | 63.82 |
| Lowell, | 2,712 | 2,441 | Naphtha, | - | - | 58.49 |
| Lynn, | 6,375 | 2,414 | Petroleum, ³ | - | 4 | 46.96 |
| Malden, | 3,620 | 4,500 | Gas oil, | - | 15,540 | 37.28 |
| Manufacturers' (Fall River), | 1,315 | 1,300 | Cannel, | 160 | 8,000 | 55.20 |
| Marblehead, | 487 | 598 | Fuel oil, | - | 1,206 | 13.36 |
| Marlborough, | 1,805 | 636 | Cannel, gas oil, | 29 | - | 24.93 |
| Millford, | 970 | 1,202 | - | - | - | 21.84 |
| Nantucket, | 313 | 298 | - | - | - | 15.41 |
| Natick, | 863 | 376 | Gas oil, | - | 466 | 18.06 |
| New Bedford, | 3,174 | 2,731 | Naphtha, ³ | - | - | 56.02 |
| Newburyport, | 586 | 1,106 | Paraffine oil, | - | 2,160 | 33.41 |
| Newton, | 5,899 | 5,928 | Gas oil, | - | 29,920 | 49.14 |
| North Adams, | 2,038 | 2,024 | Cannel, | 94 | - | 50.95 |
| Northampton, | 1,286 | 1,339 | Cannel, oil, | 127 | 5,137 | 41.73 |
| North Attleborough, | 1,233 | 1,255 | Cannel, | 32 | - | 44.12 |
| Norwood, | 251 | 272 | - | - | - | - |
| Otis Co. (Ware), | 368 | 403 | Cannel, | 70 | - | 17.27 |
| Pittsfield, | 85 | 250 | Cannel, naphtha, oil, | - | 4 | - |
| Plymouth, | 437 | 493 | Gas oil, | 15 | 2,688 | 23.89 |
| Salem, | 3,689 | 3,664 | Cannel, gas oil, | 111 | 14,550 | 37.66 |
| South Boston, | 8,626 | 9,035 | - | - | - | 54.79 |
| Springfield, | 8,372 | 8,704 | Cannel, crude oil, | 81½ | 49,090 | 49.13 |
| Taunton, | 3,803 | 4,222 | Gas oil, | - | 4,921 | 27.10 |
| Waltham, | 2,746 | 2,931 | Gas oil, | - | 1,760 | 54.11 |
| Webster, | 253 | 403 | Cannel and fuel oil, | - | - | 11.70 |
| Westfield, | 750 | 845 | Cannel, gas oil, | 26 | 5,015 | 29.17 |
| Woburn, | 795 | 932 | Crude oil, naphtha, ³ | 14 | 500 | 50.76 |
| Worcester, | 7,850 | 6,520 | - | - | 4 | 32.36 |

¹ No enricher used.⁴ Used only in water-gas apparatus and included in quantities given on page 100.⁵ Not including quantity used for water gas.² Not including coal for water gas.³ Used in water gas only.⁶ No coal gas made.⁷ Made wood gas for a portion of the year.

The following tables show the materials and quantity of each used in the manufacture of water and oil gas, also the process used and the quantity of water gas made:—

Water Gas.

| COMPANY. | Process used. | Materials used in Generator. | Quantity used. | Enricher used. | Quantity used. | Water Gas made. |
|---------------------|-------------------------------------|---------------------------------|---|------------------|-----------------|-----------------|
| Amesbury, . . . | Lowe-Granger, . . . | Anthracite, . . . | 214 tons, . . . | Naphtha, . . . | Gallons. 26,799 | Feet. 5,804,700 |
| Athol, . . . | Lowe-Granger, . . . | Anthracite, . . . | 146 tons, . . . | Naphtha, . . . | 14,044 | 3,579,500 |
| Bay State, . . . | Flannery, . . . | Anthracite, . . . | 20,396 ⁵⁰¹ / ₂₄ tons, . . . | Naphtha, . . . | 4,711,241 | 968,157,000 |
| Boston, . . . | Wilkinson and Loomis, . . . | Screenings, . . . | 780 ¹³¹ / ₁₆ tons, . . . | | | |
| | | Anthracite, . . . | 21,819 ³⁴ / ₈ tons, . . . | | | |
| | | Cumberland, . . . | 22 ¹³⁴ / ₈ tons, . . . | | | |
| | | Coke, . . . | 31,886 ¹¹ / ₆ tons, . . . | Naphtha, . . . | 1,044,577 | 199,641,000 |
| Charlestown, . . . | Granger, . . . | Coke, . . . | 623 chaldrons, . . . | Naphtha, . . . | 126,433 | 18,295,000 |
| Chicopee, . . . | Improved Lowe, . . . | Anthracite, . . . | 202 ¹⁴⁸ / ₈ tons, . . . | Naphtha, . . . | 44,707 | 9,023,500 |
| Cottage City, . . . | Loomis, . . . | Anthracite, . . . | 151 tons, . . . | | 1,100 | 3,652,000 |
| Fall River, . . . | Lowe, . . . | Anthracite, . . . | 1,095 ³⁰ / ₈ tons, . . . | Naphtha, . . . | 252,759 | 59,370,400 |
| Framingham, . . . | Loomis, . . . | Cumberland, . . . | 328 ⁵⁸ / ₈ tons, . . . | Petroleum, . . . | 8,913 | 13,230,700 |
| Haverhill, . . . | Wilkinson, . . . | Anthracite, . . . | 698 ¹⁴⁸ / ₈ tons, . . . | | — | 53,295,000 |
| Lawrence, . . . | Lowe with double superheater, . . . | Anthracite coal and coke, . . . | 151 tons, . . . | Naphtha, . . . | 264,554 | 20,685,921 |
| Pittsfield, . . . | Improved Lowe, . . . | Anthracite, . . . | 16,590 bushels, . . . | Crude oil, . . . | 89,853 | 11,717,000 |
| Spencer, . . . | Evans, . . . | Anthracite, . . . | 398 ⁸⁹ / ₂₄ tons, . . . | Naphtha, . . . | 59,647 | 11,717,000 |
| Worcester, . . . | Lowe with double superheater, . . . | Anthracite and coke, . . . | 208 ⁸⁶ / ₂₄ tons, . . . | Lima oil, . . . | 17,702 | 11,717,000 |
| | | Coke and coal, . . . | 35 ²⁰⁰ / ₆ tons, . . . | Lima oil, . . . | 85,060 | 11,388,800 |
| | | | 1,138 tons, . . . | Naphtha, . . . | 398,616 | 88,916,000 |
| | | | | Crude oil, . . . | 44,014 | |

¹ Steam from electric light department.

² 484 tons and 1,977 lbs. anthracite and 4,405 tons 673 lbs. screenings, 44 tons 1,272 lbs. coke and 236 tons 1,274 lbs. shavings for making steam.

³ Including amount used for making steam.

⁴ Non-illuminating gas.

⁵ Cumberland coal 78 tons 837 lbs. and anthracite screenings 25 tons 1,467 lbs. for making steam.

⁶ Black 192 tons, 625 lbs., pea coal 170 tons for making steam.

⁷ 434.4 tons gas coal, 132.35 tons Lehigh, 3,068 lbs. Franklin and 8,769 lbs. coke used for steam.

⁸ Coke breeze and coal for making steam.

⁹ 187 tons 950 lbs. bituminous coal and 35 tons 100 lbs. coke for making steam.

Oil Gas.

| COMPANY. | Materials used. | Quantity used. Gallons. | Fuel used. | Quantity used. |
|-------------------------|-----------------|-------------------------|----------------------|---------------------------|
| Amherst, | Naphtha, . | 12,833 | Wood, . . . | - |
| Chicopee Falls, | Petroleum, . | 35,189 | Anthracite, . . . | { 112 tons. 1,568 lbs. |
| Gardner, | Naphtha, . | 140,482 | Naphtha, . . . | - |
| Ipswich, | Petroleum, . | 18,165 | Cumberland coal, . | 114 tons. |
| Leominster, | Paraffine, . | 22,970 | Cumberland coal, . | 107 tons. |
| Lexington, | Petroleum, . | 11,558 | { Anthracite, . . . | 77 tons. |
| Middleborough, | Naphtha, . | 18,500 | { Franklin, . . . | 69 tons. |
| Southbridge, | Petroleum, . | 12,680 | { Bituminous coal, . | 155 tons. |
| Stoughton, | Naphtha, . | 6,270 | { Fuel oil, . . . | 7,000 gals. |
| Williamstown, | Naphtha, . | 11,519 | { Anthracite, . . . | 62 tons. |
| | | | { Wood, . . . | 7 cords. |
| | | | Bituminous coal, . | 65 tons. |
| | | | Wood, . . . | 67 cords. |

¹ Including that used for fuel.

STREET MAINS.

The returns by the various companies of their street mains are still somewhat deficient in detail. During the year forty-nine companies laid about sixty-two miles of mains, varying in the several cases from about two hundred feet to nearly seventeen miles.

The following table shows the lengths and sizes of the mains, as returned by the companies : —

| COMPANY. | DIAMETER IN INCHES. | | | | | | | | | | | | | | Total Length in Feet. | LENGTH IN MILES AND FEET. | | Increase during Year. | |
|-----------------------|---------------------|--------|--------|-------|---------|---------|---------|--------|--------|--------|-------|-------|-------|--------|-----------------------|---------------------------|-------|-----------------------|--------|
| | 1 | 1½ | 2 | 2½ | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 24 | | Miles. | Feet. | | |
| | | | | | | | | | | | | | | | | | | | |
| Adams, | - | - | 5,280 | - | 10,560 | 2,640 | 7,920 | - | - | - | - | - | - | - | - | 23,400 | 5 | - | - |
| Amesbury, | - | - | 4,500 | - | 14,150 | 11,315 | 3,000 | 200 | 100 | - | - | - | - | - | - | 33,565 | 6 | 1,885 | 515 |
| Amherst, | 223 | 935 | 10,652 | - | 9,681 | - | - | - | - | - | - | - | - | - | - | 23,900 | 4 | 2,750 | 750 |
| Arlington, | - | - | 500 | - | 99,574 | 2,000 | 13,985 | - | - | - | - | - | - | - | - | 116,378 | 22 | 2,218 | - |
| Attol, | 1,000 | 400 | 1,200 | - | 8,700 | 1,500 | 8,000 | 515 | - | - | - | - | - | - | - | 15,100 | 3 | 2,260 | - |
| Attleborough, | 600 | 100 | 230 | - | 3,608 | 10,796 | 8,259 | - | 6,553 | 7,550 | - | - | 2,651 | 10,297 | - | 24,108 | 4 | 2,988 | 2,287 |
| Bay State (Boston), | - | - | - | - | 13,373 | 26,549 | - | - | - | - | - | - | - | - | - | 1,822,270 | 15 | 3,070 | - |
| Beverly, | - | - | 11,415 | - | 15,940 | 11,042 | 550 | - | - | - | - | - | - | - | - | 38,947 | 7 | 1,987 | 4,268 |
| Boston, | - | - | 3,228 | - | 145,746 | 118,756 | 265,514 | 22,910 | 23,494 | 89,090 | - | - | 555 | 4,602 | - | 700,417 | 132 | 3,457 | 2,905 |
| Brockton, | 3,410 | 4,632 | 3,192 | - | 45,361 | 30,949 | 15,924 | 2,400 | 100 | - | - | - | 555 | 4,602 | - | 106,653 | 20 | 1,053 | 3,260 |
| Brookline, | 7,171 | 12,636 | 5,561 | - | 123,818 | 119,339 | 111,294 | 40,112 | 9,408 | 11,575 | 924 | 4,142 | 8,739 | 14,538 | - | 474,515 | 89 | 4,595 | 84,128 |
| Cambridge, | - | 433 | 404 | - | 332,965 | 35,223 | 52,379 | 15,562 | - | 22,875 | - | 5,687 | - | - | - | 466,888 | 88 | 2,248 | 14,258 |
| Cambletown, | - | 4,913 | 250 | - | 136,532 | 37,180 | 17,123 | 5,773 | 6,038 | 5,531 | 301 | - | - | - | - | 225,324 | 42 | 3,564 | 4,727 |
| Chelsea, | 775 | - | 6,080 | - | 16,240 | 45,356 | 27,200 | 42,440 | 1,000 | - | - | - | - | - | - | 191,491 | 36 | 1,411 | 600 |
| Chilmark, | - | - | 1,320 | - | 17,100 | 2,640 | 3,960 | - | - | - | - | - | - | - | - | 25,080 | 4 | 4,960 | 6,000 |
| Chilcopee Falls, | - | 1,600 | - | - | 3,600 | 1,500 | - | - | - | - | - | - | - | - | - | 7,500 | 1 | 2,220 | 1,400 |
| Citizens' (Quincy), | 128 | 3,833 | 2,325 | - | 23,175 | 15,600 | 5,075 | 22,000 | - | - | - | - | - | - | - | 91,291 | 11 | 3,211 | 266 |
| Citizens' (Wakfield), | - | - | 25,000 | - | 35,500 | 15,000 | 2,000 | - | - | - | - | - | - | - | - | 99,500 | 18 | 4,460 | 500 |
| Clinton, | - | - | 850 | - | 7,375 | 7,450 | 5,500 | 2,002 | 1,250 | - | 1,000 | - | - | - | - | 24,275 | 4 | 3,135 | - |
| Cottage City, | 695 | - | - | - | 2,532 | 6,584 | 657 | - | - | - | - | - | - | - | - | 12,093 | 2 | 1,533 | - |
| Danvers, | - | 136 | 553 | - | 11,667 | 4,364 | 657 | - | - | - | - | - | - | - | - | 24,950 | 4 | 3,839 | - |
| Dedham, | - | - | 9,025 | - | 33,030 | 13,399 | 18,631 | - | - | - | - | - | - | - | - | 77,735 | 14 | 3,815 | 1,228 |
| Dorchester, | - | 2,430 | 3,111 | - | 144,624 | 121,727 | 58,023 | 7,800 | 12,484 | 643 | - | 75 | - | - | - | 355,528 | 67 | 1,768 | 12,919 |
| East Boston, | - | - | 2,043 | - | 51,406 | 41,304 | 4,403 | 5,400 | 950 | 4,900 | - | - | - | - | - | 110,406 | 20 | 4,806 | 1,268 |
| Easthampton, | 600 | - | 8,490 | - | 2,500 | 7,160 | 500 | - | - | - | - | - | - | - | - | 19,250 | 3 | 3,410 | - |
| Fall River, | - | 664 | 812 | - | 32,099 | 11,593 | 45,771 | 22,310 | 1,500 | - | - | - | - | - | - | 116,949 | 22 | 789 | 1,314 |
| Fitchburg, | - | - | 4,000 | 448 | 45,016 | 11,301 | 5,400 | 12,400 | 2,000 | - | - | - | - | - | - | 80,117 | 15 | 917 | 1,517 |
| Framingham, | - | 56 | 365 | - | 17,163 | 8,552 | 2,548 | 1,920 | - | - | - | - | - | - | - | 31,471 | 6 | 5,071 | 2,633 |
| Gardner, | 700 | - | 24,711 | - | 8,750 | 8,750 | 8,980 | 3,080 | 420 | - | - | - | - | - | - | 50,230 | 10 | 3,459 | - |
| Greenfield, | - | - | 1,000 | 600 | 21,421 | 15,966 | 13,312 | 2,640 | - | - | - | - | - | - | - | 50,359 | 10 | 3,589 | 2,640 |
| Greenfield, | - | - | 6,250 | - | 13,421 | 2,640 | 2,640 | 200 | - | - | - | - | - | - | - | 26,436 | 6 | 36 | 530 |
| Haiverhill, | - | - | 7,305 | - | 74,206 | 4,800 | 30,920 | - | 10,150 | 1,534 | - | - | - | - | - | 132,801 | 25 | 801 | 5,257 |
| Holyoke, | - | 2,057 | 885 | 1,315 | 6,185 | 14,601 | 24,913 | 5,150 | - | 6,575 | - | 2,923 | 375 | - | - | 120,925 | 22 | 4,765 | 17,900 |
| Ipawich, | - | - | 10,430 | 500 | 1,755 | 1,755 | 1,160 | - | - | - | - | - | - | - | - | 14,445 | 2 | 3,865 | - |
| Jamaica Plain, | - | - | 7,300 | - | 71,650 | 96,650 | 28,300 | 20,100 | - | - | - | - | - | - | - | 94,000 | 36 | 3,920 | 6,100 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------|--------|--------|--------|-------|-------|----|-----|-----|-------|-----|-----|-----|-----|---|-----|----|-----|----|----|-------|---|---------|
| Gloucester, | 557 | 104 | 26 | 13 | 6 | 1 | 6 | 1 | 1 | 3 | 14 | 2 | 1 | 162 | 4 | 144 | 41 | 65 | 5 | 8 | 757 | | |
| Greenfield, | 16 | 183 | 27 | 125 | 76 | 37 | 1 | 20 | 1 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 266 | | |
| Haverhill, | 80 | 2,260 | 183 | 74 | 34 | 20 | 18 | 1 | 8 | 4 | 7 | 4 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,804 | | |
| Holyoke, | 1 | 1,453 | 84 | 74 | 34 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1,733 | | |
| Ipswich, | 25 | 38 | 11 | 8 | 4 | 2 | 1 | 8 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 93 | | |
| Jamaica Plain, | — | 1,031 | 486 | 35 | 11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1,766 | | |
| Lawrence, | 641 | 1,437 | 234 | 60 | 47 | 37 | — | 20 | 4 | 15 | 24 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,662 | | |
| Leominster, | 2 | 174 | 24 | 8 | 7 | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 222 | | |
| Lewiston, | 8 | 102 | 8 | 2 | 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 117 | | |
| Lowell, | 774 | 6,407 | 1,040 | 359 | 127 | 103 | — | 143 | 120 | 33 | 77 | 36 | 13 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 9,235 | | |
| Lynn, | 3 | 2,671 | 465 | 216 | 88 | 23 | — | 19 | 4 | 4 | 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3,618 | | |
| Malden, | 29 | 1,883 | 308 | 68 | 32 | 10 | — | 15 | — | 5 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,449 | | |
| Manufacturers' (Fall River), | — | 290 | 20 | 12 | 1 | 2 | — | — | — | — | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 312 | | |
| Marblehead, | — | 159 | 39 | 15 | 10 | 1 | — | 6 | 6 | — | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 231 | | |
| Marbleborough, | 6 | 116 | 41 | 21 | 20 | 5 | — | 6 | 6 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 218 | | |
| Middleborough, | 16 | 92 | 2 | 2 | 2 | 2 | — | 8 | 6 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 109 | | |
| Milford, | 368 | 39 | 29 | 15 | 2 | 2 | — | 5 | 4 | 1 | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 485 | | |
| Nantucket, | — | 147 | 6 | 4 | 2 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 161 | | |
| Natick, | 3 | 111 | 41 | 19 | 7 | — | — | 7 | 3 | 1 | 10 | — | — | — | — | — | — | — | — | — | 192 | | |
| New Bedford, | 14 | 1,750 | 470 | 145 | 23 | 21 | — | 7 | — | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,446 | | |
| Newburyport, | 26 | 366 | 42 | 25 | 16 | 6 | — | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 488 | | |
| Newton, | 51 | 1,181 | 1,013 | 271 | 84 | 24 | — | 16 | 2 | 3 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,653 | | |
| North Adams, | — | 466 | 63 | 23 | 8 | 3 | — | 13 | 1 | 4 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 502 | | |
| Northampton, | — | 426 | 96 | 14 | 8 | 10 | — | 10 | 4 | 2 | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 574 | | |
| North Attleborough, | — | 253 | 82 | 43 | 12 | 18 | — | 4 | 4 | — | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 414 | | |
| Norwood, | — | 21 | 14 | 9 | 6 | 4 | — | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 60 | | |
| Oda Co. (Ware), | 8 | 128 | 43 | 15 | 4 | 1 | — | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 207 | | |
| Pittsfield, | — | 540 | 66 | 33 | 15 | 7 | — | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 663 | | |
| Plymouth, | 80 | 125 | 16 | 60 | 7 | — | — | 4 | 34 | 11 | 11 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 297 | | |
| Roxbury, | 33 | 4,724 | 2,983 | 896 | 111 | 38 | — | 4 | 34 | 12 | 2 | 6 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8,749 | | |
| Salem, | 5 | 2,049 | 416 | 99 | 50 | 22 | — | 12 | 2 | 6 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,667 | | |
| South Boston, | 80 | 2,188 | 348 | 81 | 39 | 26 | — | 24 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2,893 | | |
| Southbridge, | 22 | 107 | 51 | 18 | 6 | — | — | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 209 | | |
| Spencer, | — | 433 | 43 | 9 | 5 | 2 | — | 52 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 499 | | |
| Springfield, | 1 | 3,451 | 613 | 166 | 91 | 3 | — | 1 | 4 | 2 | 41 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4,630 | | |
| Stoughton, | 20 | 69 | 5 | 5 | 1 | — | — | — | — | 3 | 9 | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 90 | | |
| Taunton, | 22 | 898 | 289 | 115 | 41 | 40 | — | 17 | 3 | 9 | 9 | 3 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1,452 | | |
| Waltham, | 121 | 816 | 94 | 44 | 16 | 8 | — | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1,121 | | |
| Webster, | 4 | 109 | 12 | 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 135 | | |
| Westfield, | 7 | 290 | 45 | 13 | 10 | 3 | — | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 377 | | |
| Williamstown, | — | 66 | 5 | 2 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 76 | | |
| Woburn, | 62 | 290 | 68 | 21 | 12 | 7 | — | 8 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 473 | | |
| Worcester, | 555 | 4,113 | 412 | 178 | 97 | 27 | — | 2 | 54 | 3 | 11 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5,478 | | |
| Totals, | 4,153 | 74,254 | 24,271 | 12,493 | 4,617 | 2,018 | 2 | 15 | 171 | 1,042 | 337 | 286 | 526 | 2 | 1 | 162 | 4 | 144 | 41 | 65 | 5 | 8 | 124,566 |

* Decrease.

HIGH-POWER GAS LAMPS.

The following table shows the number of Lungren or other high-power gas lamps in use June 30, 1893 : —

| | | | |
|-------------------------------------|-------|-------------------------------|-----|
| Adams, | 67 | Lowell, | 20 |
| Amesbury, | 6 | Malden, | 150 |
| Athol, | 6 | Milford, | 120 |
| Attleborough, | 13 | Natick, | 4 |
| Beverly, | 12 | New Bedford, | 30 |
| Brockton, | 109 | Newburyport, | 1 |
| Cambridge, | 33 | Newton, | 112 |
| Citizens' (Quincy), | 3 | North Adams, | 125 |
| Clinton, | 14 | Northampton, | 22 |
| Cottage City (Welsbach), | 2,270 | North Attleborough, | 31 |
| Dedham, | 9 | Pittsfield, | 16 |
| East Boston, | 150 | Plymouth, | 41 |
| Fall River (Welsbach), | 486 | Salem, | 6 |
| Fitchburg, | 7 | Spencer, | 4 |
| Framingham (Welsbach), | 1,509 | Springfield, | 6 |
| Gloucester (Albo-carbon), | 150 | Taunton, | 29 |
| Greenfield, | 22 | Waltham, | 10 |
| Haverhill, | 198 | Ware, | 5 |
| Holyoke, | 4 | Westfield, | 25 |
| Lawrence, | 188 | Worcester, | 10 |

The companies reporting more than fifty gas-stoves in use on June 30, 1893, are as follows : —

| | | | |
|-------------------------------|-------|------------------------|-------|
| Beverly, | 105 | Malden, | 61 |
| Chelsea, | 75 | Natick, | 60 |
| Citizens' (Quincy), | 71 | New Bedford, | 961 |
| Cottage City, | 71 | Newton, | 191 |
| Danvers, | 51 | North Adams, | 100 |
| Dedham, | 63 | Northampton, | 120 |
| East Boston, | 150 | Plymouth, | 120 |
| Fall River, | 792 | Salem, | 300 |
| Fitchburg, | 100 | Spencer, | 392 |
| Framingham, | 344 | Springfield, | 2,747 |
| Gloucester, | 200 | Taunton, | 170 |
| Greenfield, | 65 | Waltham, | 250 |
| Holyoke, | 400 | Ware, | 109 |
| Lawrence, | 648 | Westfield, | 116 |
| Lowell, | 1,831 | Worcester, | 1,898 |
| Lynn, | 400 | | |

The following table shows the number of lamps supplied June 30, 1893, the net increase or decrease during the year, the average price per thousand feet received from gas used in street lamps, and the cost per thousand feet of the care of the lamps where this is done by the companies : —

PUBLIC LAMPS — *Coal-gas.*

| COMPANY. | Number of Lamps supplied. | INCREASE OR DECREASE DURING THE YEAR. | | Average Price received per M, including Expenses. | Expense of Lighting and Care of Lamps per M. |
|--|---------------------------|---------------------------------------|-----------|---|--|
| | | Increase. | Decrease. | | |
| Amesbury, | 14 | - | - | \$2 00 | - |
| Beverly, | 1 | 1 | - | 2 20 | - |
| Boston, | 2,467 | - | 98 | 1 00 | - |
| Brookline, | 761 | 34 | - | 1 98 | \$0 18 |
| Cambridge, | 299 | 9 | - | 1 20 | - |
| Charlestown, | 582 | - | 5 | 1 55 | - |
| Chicopee, | 7 | - | - | 1 98 | - |
| Citizens' (Quincy), | 69 | - | - | 1 37 | 0 18 |
| Citizens' (Wakefield), | 24 | - | - | 2 15 | - |
| Cottage City, | 25 | 8 | - | 0 98 | - |
| Dorchester, | 1,472 | - | - | 1 50 | - |
| East Boston, | 582 | - | 9 | 1 60 | - |
| Fall River, | 90 | - | 58 | 1 46 | - |
| Fitchburg, | 21 | - | 1 | 1 60 | - |
| Gloucester, | 100 | - | 2 | 1 48 | - |
| Greenfield, | - | 1 | - | - | - |
| Haverhill, | 210 | 7 | - | 1 25 | - |
| Holyoke, | 39 | - | 10 | 1 30 | - |
| Jamaica Plain, | 936 | 57 | - | 1 77 | - |
| Lowell, | 833 | - | 57 | 1 10 | - |
| Manufacturers' (Fall River), | 20 | - | 13 | 1 33 | - |
| Marblehead, | 84 | 3 | - | 3 72 | 1 47 |
| Marlborough, | 3 | - | - | 2 34 | - |
| Milford, | 29 | - | 13 | 1 80 | 0 37 |
| Nantucket, | - | - | 76 | 2 44 | 0 46 |
| Natick, | 6 | - | 33 | 1 12 | 0 73 |
| New Bedford, | 422 | 9 | - | 1 80 | 0 42 |
| Newton, | 845 | 22 | - | 1 62 | 0 94 |
| North Adams, | 19 | - | - | 1 09 | 0 78 |
| North Attleborough, | 5 | - | - | 2 00 | - |
| Roxbury, | 1,647 | 25 | - | 1 50 | - |
| Salem, | - | - | 43 | 1 60 | - |
| South Boston, | 536 | - | 22 | 1 50 | - |
| Springfield, | 49 | - | 8 | 1 25 | - |
| Taunton, | 135 | 3 | - | 1 50 | - |
| Waltham, | 145 | - | 31 | 3 04 | 1 48 |
| Ware, | 1 | - | - | 2 17 | - |
| Westfield, | 17 | - | - | 2 25 | - |
| Worcester, | 297 | - | - | 1 50 | - |
| | 12,792 | | | | |

Oil Gas.

| COMPANY. | Number of Lamps supplied. | INCREASE OR DECREASE DURING THE YEAR. | | Average Price received per M, including Expenses. | Expense of Lighting and Care of Lamps per M. |
|-------------------------|---------------------------------|--|-----------|--|--|
| | | Increase. | Decrease. | | |
| Amherst, | 45 | - | - | \$5 04 | - |
| Chicopee Falls, | 9 | - | 51 | - | - |
| Ipswich, | 12 | - | - | 3 50 | - |
| Lexington, | 102 | 15 | - | 2 82 | \$0 23 |
| Williamstown, | 11 | - | - | 7 60 | - |
| | 179 | | | | |

PURITY OF GAS.

The law provides that when the gas of any company is found on three consecutive inspections to give less light than sixteen standard English candles, or to contain more than twenty grains of sulphur or ten grains of ammonia per hundred cubic feet of gas, or any sulphuretted hydrogen, a fine of one hundred dollars shall be paid by such company to the city or town supplied by it.

The following table shows the amount of impurities found on the dates stated, and the whole number of inspections during the year, of the gas of the several companies named, as reported to this Board by the State Inspector of Gas :—

| Kind of Impurities. | COMPANY. | Amount of Impurity. | Date when found. | Total Number of Inspections during the Year. |
|---------------------------------|-------------------------------|---------------------|------------------|--|
| Deficient candle-power. | Danvers, | 15.8 | Mar. 25, | 2 |
| | North Adams, | 15.9 | Dec. 13, | 4 |
| | Salem, | 15.4 | Oct. 28, | 8 |
| | Westfield, | 16.3 | Dec. 13, | 3 |
| Ammonia, grains per 100 cu. ft. | Chelsea, | 15.4 | Dec. 30, | 7 |
| | Citizens' (Quincy), | 14.6 | Mar. 10, | 3 |
| | Citizens' (Quincy), | 20.0 | Oct. 13, | — |
| | East Boston, | 18.5 | Feb. 3, | 9 |
| | East Boston, | 11.2 | Apr. 12, | — |
| | Greenfield, | 13.2 | Oct. 4, | 2 |
| | Holyoke, | 10.9 | June 28, | 10 |
| | Holyoke, | 11.2 | Aug. 9, | — |
| | Jamaica Plain, | 35.7 | July 28, | 9 |
| | Malden, | 16.4 | Jan. 26, | 8 |
| | Malden, | 12.1 | Apr. 27, | — |
| | Milford, | 26.8 | Mar. 10, | 4 |
| Sulphur, grains per 100 cu. ft. | Pittsfield, | 21.4 | Sept. 12, | 4 |
| Sulphuretted Hydrogen. | Amesbury, | Trace. | June 14, | 3 |
| | Natick, | " | Nov. 4, | 3 |
| | North Adams, | " | Dec. 13, | 4 |
| | Salem, | " | Feb. 2, | 8 |
| | Salem, | " | Mar. 7, | — |
| | Salem, | " | Apr. 14, | — |
| | Spencer, | " | Mar. 16, | 3 |
| | Spencer, | " | Nov. 23, | — |
| | Springfield, | " | Feb. 8, | 16 |
| | Springfield, | " | Nov. 24, | — |
| | Springfield, | " | Dec. 14, | — |

Of the quantities of ammonia cited above the two at East Boston, Holyoke, Malden and Quincy were consecutive; as was also the case with the three instances of sulphuretted hydrogen at Salem and the two in Spencer and Springfield.

A study of the inspections of the coal-gas companies made during the five years from 1889 to 1893, inclusive, shows the following facts:—

| | 1889. | 1890. | 1891. | 1892. | 1893. |
|--|-------|-------|-------|-------|-------|
| Number of inspections made, | 451 | 443 | 483 | 486 | 515 |
| Number of companies subject to inspection, | 59 | 59 | 58 | 70 | 68 |
| Number of companies showing deficiency in candle-power, | 4 | 2 | 1 | 1 | 4 |
| Highest candle-power, not including ten oil-gas companies, | 22.1 | 25.4 | 27.3 | 28.2 | 27.7 |
| Lowest candle-power, not including ten oil-gas companies, | 14.2 | 13.8 | 14.0 | 15.7 | 15.3 |
| Average candle-power, not including ten oil-gas companies, | 17.59 | 17.79 | 18.13 | 19.25 | 19.80 |
| Number of companies showing sulphuretted hydrogen, | 4 | 9 | 5 | 8 | 6 |
| Number of companies showing excess of sulphur, | 1 | 1 | 1 | 2 | 1 |
| Number of companies showing excess of ammonia, | 9 | 15 | 16 | 12 | 8 |
| Largest amount of sulphur, | 22.9 | 24.1 | 22.5 | 32.9 | 21.4 |
| Smallest amount of sulphur, | 1.5 | 1.4 | 0.9 | 1.0 | 0.7 |
| Average amount of sulphur, | 7.32 | 10.08 | 9.53 | 9.46 | 8.32 |
| Largest amount of ammonia, | 32.3 | 37.0 | 54.9 | 40.4 | 35.7 |
| Smallest amount of ammonia, | 1.— | 1.— | 1.— | 1.— | 1.— |
| Average amount of ammonia, | 2.82 | 3.01 | 3.42 | 2.5 | 2.24 |

The inspections of the oil-gas companies showed:—

| | 1889. | 1890. | 1891. | 1892. | 1893. |
|---------------------------------|-------|-------|-------|-------|-------|
| Highest candle-power, | 55.0 | 70.5 | 53.6 | 60.4 | 59.6 |
| Lowest candle-power, | 20.8 | 21.1 | 20.2 | 21.6 | 22.5 |
| Average candle-power, | 34.72 | 39.04 | 33.62 | 33.50 | 32.34 |

ELECTRIC LIGHT.

The following table gives the names of those companies in active operation on June 30 last, together with the localities supplied and the amount of capital stock: —

| CORPORATE NAME. | LOCALITIES SUPPLIED. | CAPITAL. |
|---|--|-----------|
| Adams Electric Light and Power Co., | Adams, | \$8,500 |
| Amesbury Electric Light, Heat and Power Co., | Amesbury, | 50,000 |
| Amherst Gas Co., | Amherst, | — |
| Andover Electric Co., | Andover, | 30,000 |
| Athol Gas and Electric Co., | Athol, | — |
| Beverly Gas and Electric Co., | Beverly, | — |
| Blue Hill Electric Co., | Canton, | 22,000 |
| Boston Electric Light Co., | Boston, | 1,596,200 |
| Bridgewater Electric Co., | Bridgewater, | 15,000 |
| Brookline Gas Light Co., | Brookline, Boston (Brighton), | — |
| Cambridge Electric Light Co., | Cambridge, | 200,000 |
| Charlestown Gas and Electric Co., | Charlestown, | — |
| Chelsea Gas Light Co., | Chelsea, | — |
| Chicopee Electric Light Co., | Chicopee, | 10,000 |
| Citizens' Gas Light Co. of Reading, South Reading and Stoneham, | Wakefield, | — |
| Clinton Gas Light Co., | Clinton, | — |
| Cohasset Electric Co., | Cohasset, Scituate, | 30,000 |
| Cottage City Gas and Electric Light Co., | Cottage City, | — |
| Dedham Electric Co., | Dedham, | 60,000 |
| Easthampton Gas Co., | Easthampton, | — |
| Edison Electric Illuminating Co. of Boston, | Boston, | 2,070,800 |
| Edison Electric Illuminating Co. of Brockton, | Brockton, | 100,000 |
| Edison Electric Illuminating Co. of Fall River, | Fall River, | 90,000 |
| Electric Light and Power Co. of Abington and Rockland, | Abington, Rockland, | 41,200 |
| Elliot Falls Electric Light Co., | — | 81,800 |
| Fall River Electric Light Co., | Fall River, | 120,000 |
| Fitchburg Gas Co., | Fitchburg, | — |
| Framingham Electric Co., | Framingham, Ashland, Sherborn, | 80,000 |
| Franklin Electric Light Co., | Turner's Falls, | 10,000 |
| Gardner Electric Light Co., | Gardner, | 30,000 |
| Gloucester Electric Co., | Gloucester, Rockport, | 50,000 |
| Great Barrington Electric Light Co., | Great Barrington, | 23,300 |
| Greenfield Electric Light and Power Co., | Greenfield, Deerfield, | 30,000 |
| Haverhill Electric Co., | Haverhill, Bradford, | 127,500 |
| Holyoke Water Power Co., | Holyoke, | — |
| Hudson Electric Light Co., | Hudson, | 15,000 |
| Hull Electric Light and Power Co., | Hull, | 60,000 |
| Hyde Park Electric Light Co., | Hyde Park, | 100,000 |
| Lawrence Gas Co., | Lawrence, No. Andover, Methuen, | — |
| Lee Electric Co., | Lee, | 20,000 |
| Leicester Electric Co., | Leicester, | 25,000 |
| Leominster Electric Light and Power Co., | Leominster, | 50,000 |
| Lowell Electric Light Corporation, | Lowell, Dracut, Tyngsboro', | 300,000 |
| Lynn Gas and Electric Co., | Lynn, Swampscott, Nahant, | — |
| Malden Electric Co., | Malden, Melrose, Medford, Everett, | 150,000 |

¹ Sold only to town of Wellesley.

² Par value \$25.00 per share.

| CORPORATE NAME. | LOCALITIES SUPPLIED. | CAPITAL. |
|--|---|----------|
| Marlborough Electric Co., | Marlborough, | \$30,000 |
| Middleborough Gas and Electric Co., | Middleborough, | - |
| Millford Electric Light and Power Co., | Millford, Hopedale, | 40,000 |
| Millbury Electric Co., | Millbury, | 15,000 |
| Milton Light and Power Co., | Milton, | 30,000 |
| Nantucket Electric Light Co., | Nantucket, | 25,000 |
| Natick Electric Co., | Natick, Wayland, | 40,000 |
| New Bedford Gas and Edison Light Co., | New Bedford, Fairhaven, | - |
| Newburyport Gas and Electric Co., | Newburyport, | - |
| Newton and Watertown Gas Light Co., | Newton, Watertown, | - |
| North Adams Gas Light Co., | North Adams, | - |
| Northampton Electric Lighting Co., | Northampton, | 58,700 |
| North Attleborough Steam and Electric Co., | Attleborough, North Attleborough, Wrentham, | 80,000 |
| North Shore Electric Co., | Revere, Winthrop, | 125,000 |
| Orange Electric Light Co., | Orange, | 45,000 |
| Palmer and Monson Electric Co., | Palmer, Monson, | 30,000 |
| Pittsfield Electric Co., | Pittsfield, | 100,000 |
| Plymouth Electric Light Co., | Plymouth, | 90,000 |
| Quincy Electric Light and Power Co., | Quincy, | 89,700 |
| Salem Electric Lighting Co., | Salem, Peabody, | 175,000 |
| Somerville Electric Light Co., | Somerville, Arlington, Belmont, | 200,000 |
| Southbridge Gas and Electric Co., | Southbridge, | - |
| South Hadley Falls Electric Light Co., | South Hadley, Chicopee, in part, | 7,000 |
| Spencer Gas Co., | Spencer, | - |
| Stoughton Gas and Electric Co., | Stoughton, | - |
| Suburban Light and Power Co., | Boston, | 174,400 |
| Taunton Electric Lighting Co., | Taunton, | 50,000 |
| Union Electric Light Co., | Franklin, | 20,000 |
| United Electric Light Co., | Springfield, | 500,000 |
| Uxbridge and Northbridge Electric Co., | Uxbridge, Northbridge, | 39,200 |
| Waltham Gas Light Co., | Waltham, | - |
| Ware Electric Co., | Ware, | 20,000 |
| Webster Electric Co., | Webster, Dudley, | 45,000 |
| Westborough Electric Light and Power Co., | Westborough, | 25,000 |
| Westfield Gas Light Co., | Westfield, | - |
| Weymouth Light and Power Co., | Weymouth, Hingham, | 75,000 |
| Whitman Electric Co., | Whitman, | 35,000 |
| Winchendon Electric Light and Power Co., | Winchendon, | 12,000 |
| Woburn Electric Light Co., | Woburn, Winchester, Stoneham, | 120,000 |
| Worcester Electric Light Co., | Worcester, | 200,000 |

* Par value \$10.00 per share.

In the case of the several gas companies doing electric lighting, the capital will be found in the table of gas companies.

The following companies have bonds and notes outstanding:—

| | |
|---------------------------------------|------------------------------------|
| Abington and Rockland, . . . \$55,500 | Marlborough, \$54,900 |
| Adams, 9,000 | Milford, 20,500 |
| Amesbury, 50,000 | Millbury, 16,000 |
| Andover, 28,000 | Milton, 36,000 |
| Blue Hill (Canton), . . . 21,450 | Nantucket, 31,000 |
| Boston, 353,000 | Natick, 45,000 |
| Bridgewater, 15,000 | Northampton, 22,000 |
| Cambridge, 200,000 | North Attleborough, . . 75,000 |
| Chicopee, 7,000 | North Shore, 142,900 |
| Cohasset, 9,000 | Orange, 45,000 |
| Dedham, 52,500 | Palmer, 67,000 |
| Edison (Boston), 780,500 | Pittsfield, 75,000 |
| Edison (Brockton), . . . 134,750 | Plymouth, 80,000 |
| Edison (Fall River), . . . 43,500 | Quincy, 23,800 |
| Eliot Falls, 1,580 | Salem, 95,000 |
| Fall River, 10,500 | Somerville, 96,800 |
| Framingham, 50,000 | South Hadley Falls, . . . 3,900 |
| Gloucester, 50,000 | Suburban (Boston), . . . 110,375 |
| Great Barrington, 14,500 | Taunton, 25,000 |
| Greenfield, 10,500 | Union (Franklin), 30,000 |
| Haverhill, 81,000 | United (Springfield), . . 160,000 |
| Hudson, 4,500 | Uxbridge and Northbridge, . 25,000 |
| Hull, 60,000 | Ware, 16,500 |
| Hyde Park, 88,800 | Westborough, 19,400 |
| Lee, 15,000 | Weymouth, 75,000 |
| Leicester, 20,000 | Whitman, 25,000 |
| Leominster, 82,000 | Winchendon, 18,000 |
| Lowell, 158,000 | Woburn, 207,000 |
| Malden, 211,000 | Worcester, 100,000 |

The following table shows the whole number of stockholders, the number resident in Massachusetts, and the value at par of the stock held in the State on June 30, 1893:—

| COMPANY. | Whole Number of Stockholders. | Number Resident in Massachusetts. | Value of Stock held in Massachusetts. |
|----------------------------------|-------------------------------------|---|---|
| Abington and Rockland, | 136 | 136 | \$41,200 |
| Adams, | 7 | 6 | 8,300 |
| Amesbury, | 35 | 34 | 45,200 |
| Andover, | 36 | 35 | 29,500 |
| Blue Hill (Canton), | 3 | 3 | 22,000 |
| Boston, | 510 | 149 | 685,100 |
| Bridgewater, | 14 | 14 | 15,000 |
| Cambridge, | 38 | 38 | 200,000 |
| Chicopee, | 6 | 6 | 10,000 |
| Cohasset, | 30 | 30 | 30,000 |

| COMPANY. | Whole Number of Stockholders. | Number Resident in Massachusetts. | Value of Stock held in Massachusetts. |
|--------------------------------------|-------------------------------------|---|---|
| Dedham, | 33 | 33 | \$60,000 |
| Edison (Boston), | 254 | 242 | 1,788,100 |
| Edison (Brockton), | 10 | 9 | 82,000 |
| Edison (Fall River), | 48 | 44 | 78,500 |
| Eliot Falls, | 6 | 6 | 81,800 |
| Fall River, | 54 | 44 | 141,733 |
| Framingham, | 8 | 8 | 74,800 |
| Franklin (Turner's Falls), | 25 | 25 | 10,000 |
| Gardner, | 12 | 12 | 30,000 |
| Gloucester, | 10 | 10 | 50,000 |
| Great Barrington, | 21 | 9 | 6,800 |
| Greenfield, | 41 | 32 | 23,400 |
| Haverhill, | 62 | 62 | 127,500 |
| Hudson, | 13 | 13 | 9,125 |
| Hull, | 4 | 4 | 60,000 |
| Hyde Park, | 27 | 23 | 87,800 |
| Lee, | 7 | 7 | 20,000 |
| Leicester, | 11 | 11 | 25,000 |
| Leominster, | 8 | 8 | 9,300 |
| Lowell, | 372 | 332 | 275,000 |
| Malden, | 43 | 38 | 135,800 |
| Marlborough, | 9 | 9 | 30,000 |
| Millbury, | 26 | 26 | 15,000 |
| Milton, | 6 | 6 | 30,000 |
| Natick, | 7 | 7 | 2,500 |
| Northampton, | 65 | 65 | 58,700 |
| North Attleborough, | 8 | 2 | 39,400 |
| North Shore, | 12 | 11 | 5,100 |
| Orange, | 5 | 5 | 45,000 |
| Palmer, | 11 | 7 | 14,600 |
| Pittsfield, | 45 | 43 | 92,300 |
| Plymouth, | 6 | 6 | 90,000 |
| Quincy, | 116 | 116 | 89,700 |
| Salem, | 130 | 127 | 168,500 |
| Somerville, | 249 | 240 | 194,700 |
| South Hadley Falls, | 3 | 3 | 7,000 |
| Suburban (Boston), | 12 | 10 | 101,000 |
| Taunton, | 17 | 17 | 50,000 |
| Union (Franklin), | 4 | 4 | 500 |
| United (Springfield), | 173 | 159 | 438,000 |
| Uxbridge and Northbridge, | 52 | 51 | 38,800 |
| Ware, | 41 | 41 | 20,000 |
| Westborough, | 20 | 18 | 24,490 |
| Weymouth, | 11 | 11 | 61,800 |
| Whitman, | 9 | 9 | 35,000 |
| Winchendon, | 28 | 28 | 12,000 |
| Woburn, | 60 | 56 | 11,520 |
| Worcester, | 102 | 100 | 199,500 |

The following show the aggregate results of the operation of the electric light central stations in the State for the year ending June 30, 1892, and for the year ending June 30, 1893 :—

| | YEAR ENDING JUNE 30. | |
|---|-----------------------|-----------------------|
| | 1892. | 1893. |
| RECEIPTS. | | |
| For light and power, | \$2,947,199 64 | \$3,427,576 84 |
| From other sources, | 23,438 30 | 10,790 67 |
| | \$2,970,637 94 | \$3,438,367 51 |
| EXPENSES. | | |
| For manufacture, | \$1,156,320 69 | \$1,376,946 15 |
| distribution, | 386,084 45 | 463,535 46 |
| office expenses and management, | 194,999 25 | 254,245 01 |
| taxes, | 107,291 15 | 123,448 96 |
| miscellaneous, | 170,707 32 | 161,076 59 |
| | \$2,015,402 86 | \$2,379,252 17 |
| Leaving a balance of | \$955,235 08 | \$1,059,115 34 |
| Of this profit, the gas companies made in their electrical departments, | 189,225 74 | 188,139 90 |
| Leaving for the electric light companies, | \$766,009 34 | \$870,975 44 |
| To which should be added the income from rents, jobbing, etc., amounting to | 195,280 73 | 107,512 17 |
| Making a total of | \$961,290 07 | \$978,487 61 |
| Against which the following charges were made :— | | |
| Interest, | \$196,094 15 | \$220,175 43 |
| Dividends, | 323,581 00 | 434,328 00 |
| Depreciation, | 210,168 79 | 214,729 89 |
| Sundry items, | 32,227 49 | 104,086 47 |
| | \$761,071 43 | \$983,319 79 |
| Leaving a surplus for the year of | \$200,218 64 | |
| Leaving a deficit for the year of | | \$4,832 18 |

Six of the companies appear not to have earned expenses, and twenty-six others have not earned sufficient to warrant the declaration of any dividend.

Profits in the operation of the business have increased over the previous year by \$104,966.10, but interest charges and dividends have increased yet more, making a deficit when the entire transactions of all the companies for the year are considered.

In the appendix will be found, under date of June 30, 1893, the separate balance sheets, profit and loss and manufacturing accounts of the electric companies, as taken from the annual returns, with corrections as made by the Board after examination and correspondence with the officers of the several companies.

Aggregates from the balance sheets of the electric companies only, taken from the returns of 1892 and 1893, show the following facts : —

| | June 30, 1892. | June 30, 1893. |
|--|------------------------|------------------------|
| ASSETS :— | | |
| Construction accounts, including patent rights and franchises, | \$11,097,808 20 | \$13,030,611 53 |
| Cash on hand, | 419,639 53 | 238,539 80 |
| Due for light and power, | 238,708 79 | 301,233 79 |
| Other accounts due, | 68,026 85 | 135,323 15 |
| Materials, etc., | 460,153 63 | 369,042 45 |
| Notes receivable, | 69,229 09 | 5,810 55 |
| Investments, | 85,291 10 | 194,801 96 |
| | \$12,438,857 19 | \$14,275,363 23 |
| LIABILITIES :— | | |
| Capital, | \$6,539,700 00 | \$8,088,533 34 |
| Bonds, | 2,548,050 00 | 2,898,900 00 |
| Notes payable, | 1,767,907 27 | 1,958,782 86 |
| Unpaid bills, | 557,947 76 | 433,544 51 |
| Unpaid dividends, | 2,462 48 | 1,042 00 |
| Interest due and unpaid, | 29,991 06 | 43,095 97 |
| Other items, | 345,831 67 | 78,173 78 |
| | \$11,791,890 24 | \$13,502,072 46 |
| Reserved and depreciation funds, | 132,825 32 | 218,877 76 |
| | \$11,924,715 56 | \$13,720,950 22 |
| Surplus, | 514,141 63 | 554,413 01 |
| | \$12,438,857 19 | \$14,275,363 23 |
| Of these companies — | | |
| 37 ¹ show an aggregate surplus of | \$578,266 71 | \$671,261 16 |
| 23 ² show an aggregate deficit of | 64,125 08 | 116,848 15 |
| Leaving total net surplus, as shown above, | \$514,141 63 | \$554,413 01 |
| Which, added to reserves carried as liabilities, | 132,825 32 | 218,877 76 |
| Would show an actual surplus of | \$646,966 95 | \$773,290 77 |
| Equivalent to per cent. on capital of about | 9.8 | 9.5 |

¹ Thirty-nine in 1892.² Seventeen in 1892.

The following table shows the value of the plant of each company, as assessed by the local authorities :—

| COMPANY. | Assessed Valuation. | COMPANY. | Assessed Valuation. |
|--------------------------------------|------------------------|-------------------------------------|------------------------|
| Abington and Rockland, | \$30,600 | Marlborough, | \$30,000 |
| Adams, | 9,500 | Millford, | - |
| Amesbury, | 27,000 | Millbury, | 15,000 |
| Andover, | 57,628 | Milton, | 30,000 |
| Blue Hill (Canton), | 42,099 | Nantucket, | 10,000 |
| Boston, | 607,400 | Natick, | 30,000 |
| Bridgewater, | 30,829 | Northampton, | 39,000 |
| Cambridge, | 247,000 | North Attleborough, | 40,350 |
| Chicopee, | 9,000 | North Shore, | 72,200 |
| Cohasset, | 2,000 | Orange, | 15,200 |
| Dedham, | 47,000 | Palmer, | 12,500 |
| Edison (Boston), | 816,300 | Pittsfield, | 100,000 |
| Edison (Brockton), | 91,250 | Plymouth, | 30,150 |
| Edison (Fall River), | 72,600 | Quincy, | 47,000 |
| Fall River, | 100,000 | Salem, | 195,000 |
| Framingham, | 40,000 | Somerville, | 118,000 |
| Franklin (Turner's Falls), | 9,000 | South Hadley Falls, | 3,500 |
| Gardner, | 28,000 | Suburban (Boston), | 51,600 |
| Gloucester, | 43,000 | Taunton, | 25,000 |
| Great Barrington, | 4,500 | Union (Franklin), | 15,600 |
| Greenfield, | 27,000 | United (Springfield), | 321,600 |
| Haverhill, | 97,000 | Uxbridge and Northbridge, | 12,000 |
| Hudson, | 2,500 | Ware, | 20,000 |
| Hull, | 25,100 | Westborough, | 9,300 |
| Hyde Park, | 92,000 | Weymouth, | 40,050 |
| Lee, | 12,000 | Whitman, | 21,000 |
| Leicester, | 14,950 | Winchendon, | 6,000 |
| Leominster, | 50,800 | Woburn, | 79,140 |
| Lowell, | 180,620 | Worcester, | 252,500 |
| Malden, | 111,900 | | |

The following table shows the amounts paid by the companies for taxes, including those paid by the gas companies on account of their electric plants :—

| COMPANY. | Taxes paid. | COMPANY. | Taxes paid. |
|----------------------------------|-------------|----------------------------------|-------------|
| Abington and Rockland, | \$678 64 | Charlestown, | \$1,300 00 |
| Adams, | 151 92 | Chelsea, | 1,200 00 |
| Amherst, | 73 09 | Chicopee, | 161 08 |
| Amesbury, | 399 17 | Citizens' (Wakefield), | 372 16 |
| Andover, | 162 10 | Clinton, | 1,177 31 |
| Arhol, | 111 94 | Cohasset, | 166 39 |
| Beverly, | 825 36 | Cottage City, | 58 40 |
| Blue Hill (Canton), | 6 67 | Dedham, | 1,072 92 |
| Boston, | 18,327 38 | Easthampton, | 108 22 |
| Bridgewater, | 193 44 | Edison (Boston), | 23,197 18 |
| Brookline, | 2,232 41 | Edison (Brockton), | 1,339 05 |
| Cambridge, | 3,911 04 | Edison (Fall River), | 1,605 11 |

| COMPANY. | Taxes paid. | COMPANY. | Taxes paid. |
|--------------------------------------|-------------|-------------------------------------|--------------|
| Fall River, | \$2,264 41 | Northampton, | \$615 09 |
| Fitchburg, | 900 00 | North Attleborough, | 1,278 31 |
| Framingham, | 974 02 | North Shore, | 1,570 40 |
| Franklin (Turner's Falls), | 185 34 | Orange, | 322 33 |
| Gardner, | 613 84 | Palmer, | 233 84 |
| Gloucester, | 683 59 | Pittsfield, | 1,320 00 |
| Great Barrington, | 204 34 | Plymouth, | 225 82 |
| Greenfield, | 403 67 | Quincy, | 1,423 56 |
| Haverhill, | 1,451 63 | Salem, | 3,147 66 |
| Holyoke, | 2,978 10 | Somerville, | 2,636 15 |
| Hudson, | 57 81 | Southbridge, | 417 38 |
| Hull, | 74 40 | South Hadley Falls, | 138 43 |
| Hyde Park, | 1,137 20 | Spencer, | 238 92 |
| Lawrence, | 2,118 22 | Stoughton, | 191 66 |
| Lee, | 324 27 | Suburban (Boston), | 593 67 |
| Leicester, | 194 06 | Taunton, | 688 68 |
| Leominster, | 1,102 69 | Union (Franklin), | 286 75 |
| Lowell, | 4,236 76 | United (Springfield), | 4,688 84 |
| Lynn, | 2,689 78 | Uxbridge and Northbridge, | 222 94 |
| Malden, | 2,279 33 | Waltham, | 1,679 93 |
| Marlborough, | 387 85 | Ware, | 306 62 |
| Middleborough, | 330 87 | Webster, | 311 54 |
| Milford, | 611 05 | Westborough, | 164 76 |
| Milbury, | 173 57 | Westfield, | 280 02 |
| Milton, | 96 00 | Weymouth, | 1,239 63 |
| Nantucket, | 200 42 | Whitman, | 286 49 |
| Natick, | 691 87 | Winchendon, | 90 24 |
| New Bedford, | 6,257 77 | Woburn, | 1,156 80 |
| Newburyport, | 1,018 91 | Worcester, | 3,404 93 |
| Newton, | 755 00 | | |
| North Adams, | 259 78 | | \$123,448 96 |

DIVIDENDS.

The dividends declared by the several companies during the year are shown in the following table : —

| COMPANY. | Rate Per Cent. | Amount of Dividends. |
|----------------------------------|----------------|----------------------|
| Abington and Rockland, | 6 | \$1,873 50 |
| Adams, | — | — |
| Amesbury, | 4½ | 2,023 00 |
| Andover, | — | — |
| Blue Hill (Canton), | — | — |
| Boston, | 8 | 108,510 00 |
| Bridgewater, | — | — |
| Cambridge, | 6 | 12,000 00 |
| Chicopee, | — | — |
| Cohasset, | — | — |
| Dedham, | 6 | 3,600 00 |
| Edison (Boston), | 8 | 149,298 00 |
| Edison (Brockton), | 6 | 6,000 00 |

* No dividend declared.

| COMPANY. | Rate Per Cent. | Amount of Dividends. |
|--------------------------------------|----------------|----------------------|
| Edison (Fall River), | 8 | \$7,200 00 |
| Eliot Falls, | - | 0- |
| Fall River, | 6 | 7,200 00 |
| Framingham, | - | 0- |
| Franklin (Turner's Falls), | 5 | 500 00 |
| Gardner, | 8½ | 2,500 00 |
| Gloucester, | 3 | 1,500 00 |
| Great Barrington, | - | 0- |
| Greenfield, | - | 0- |
| Haverhill, | 6 | 7,650 00 |
| Hudson, | - | 0- |
| Hull, | - | 0- |
| Hyde Park, | 4½ | 4,500 00 |
| Lee, | - | 0- |
| Leicester, | - | 0- |
| Leominster, | - | 0- |
| Lowell, | 7 | 20,993 00 |
| Malden, | 8 | 12,000 00 |
| Marlborough, | - | 0- |
| Milford, | - | 0- |
| Millbury, | - | 0- |
| Milton, | - | 0- |
| Nantucket, | - | 0- |
| Natick, | - | 0- |
| Northampton, | 2½ | 1,467 50 |
| North Attleborough, | - | 0- |
| North Shore (Revere), | - | 0- |
| Orange, | - | 0- |
| Palmer and Monson, | - | 0- |
| Pittsfield, | 5 | 5,000 00 |
| Plymouth, | - | 0- |
| Quincy, | 6 | 5,382 00 |
| Salem, | 6 | 10,500 00 |
| Somerville, | 6 | 11,163 00 |
| South Hadley Falls, | - | 0- |
| Suburban (Boston), | - | 0- |
| Taunton, | 7 | 3,500 00 |
| Union (Franklin), | 1½ | 300 00 |
| United (Springfield), | 6½ | 30,500 00 |
| Uxbridge and Northbridge, | 2 | 768 00 |
| Ware, | 6 | 1,200 00 |
| Westborough, | - | 0- |
| Weymouth, | - | 0- |
| Whitman, | - | 0- |
| Winchendon, | - | 0- |
| Woburn, | 1 | 1,200 00 |
| Worcester, | 8 | 16,000 00 |
| | | <hr/> \$434,328 00 |

* No dividend declared.

The following table shows the system used, the maximum dynamo capacity and nominal candle-power of the lamps of each company June 30, 1893 :—

| COMPANY. | System used. | Maximum Dynamo Capacity. | Nominal Candle- power. |
|---|---|---|---|
| Abington and Rockland, . | { Edison, Westinghouse, National, Thomson-Houston, | { 141 2,200 2,500 650 | { 1,200 16 16 16 |
| Adams, ¹ | { Thomson-Houston, Westinghouse, | { 45 500 | { 1,200 16 |
| Amesbury, ² | { Thomson-Houston, Westinghouse, | { 500 90 | { 16 1,200 |
| Amherst, | { Westinghouse, Thomson-Houston, | { 1,100 50 | { 16 1,200 |
| Andover, | { Thomson-Houston, Thomson-Houston, | { 2,630 50 | { 16 1,200 |
| Athol, | { Thomson-Houston, Thomson-Houston, | { 35 100 | { 2,000 1,200 |
| Beverly, | { Thomson-Houston, Waterhouse, Westinghouse, | { 650 35 750 | { 16 2,000 16 |
| Bridgewater, | { Westinghouse, Westinghouse, | { 60 750 | { 2,000 16 |
| Blue Hill (Canton), | { Westinghouse, Thomson-Houston, | { 750 2,270 | { 16 2,000 |
| Boston, ³ | { Thomson-Houston, Brush, American, New England Weston, Sun, Thomson-Houston, Westinghouse, | { 50 1,405 50 2,090 900 400 3,000 | { 1,200 16 2,000 16 16 2,000 16 |
| Brookline, ⁴ | { Thomson-Houston, Westinghouse, | { 630 5,200 | { 1,200 16 |
| Cambridge, ⁵ | { Thomson-Houston, Brush, Thomson-Houston, | { 300 650 300 | { 2,000 16 2,000 |
| Charlestown, | { Thomson-Houston, Thomson-Houston, | { 300 1,950 | { 1,200 16 |
| Chelsea, ⁶ | { Thomson-Houston, Thomson-Houston, | { 100 45 | { 1,200 1,200 |
| Chicopee, | { Thomson-Houston, Thomson-Houston, | { 650 90 | { 16 1,200 |
| Citizens' (Wakefield), ⁷ | { Schnyler, Thomson-Houston, Thomson-Houston, | { 2,930 2,300 60 | { 16 16 1,600 |
| Clinton, | { Thomson-Houston, Thomson-Houston, Ball, | { 60 1,950 35 | { 1,200 16 1,800 |
| Cohasset, | { Thomson-Houston, Edison, | { 76,800 836 | { 16 15 |
| Cottage City, | { Edison, Thomson-Houston, | { 6,100 205 | { 16 2,000 |
| Dedham, | { Thomson-Houston, Waterhouse, | { 650 7,910 | { 16 16 |
| Easthampton, | { Edison, Edison, | { 1,000 1,000 | { 16 16 |
| Edison (Boston), | { Edison, Thomson-Houston, | { 76,800 836 | { 16 15 |
| Edison (Brockton), ⁸ | { Edison, Thomson-Houston, | { 6,100 205 | { 16 2,000 |
| Edison (Fall River), | { Edison, Edison, | { 7,910 1,000 | { 16 16 |
| Eliot Falls, | { Thomson-Houston, Thomson-Houston, | { 1,000 1,000 | { 16 16 |

¹ Power generator 80 H. P.² Power generators 230 H. P.³ Power generators 120 K. W.⁷ Power generator 80 H. P.³ Power generator 62 K. W.⁴ Power generator 60 H. P.⁶ Power generator 40 H. P.⁸ Power generator 100 H. P.

| COMPANY. | System used. | Maximum Dynamo Capacity. | Nominal Candle- power. |
|----------------------------------|--|--------------------------------|------------------------------|
| Fall River, | Thomson-Houston, | 400 226 650 | 2,000 1,200 16 |
| Fitchburg, ¹ | Thomson-Houston, | 295 1,300 140 | 1,200 16 1,200 |
| Framingham, | Thomson-Houston, | 2,800 30 | 16 2,000 |
| Franklin (Turner's Falls), . | Thomson-Houston, | 600 100 | 16 1,200 |
| Gardner, | Thomson-Houston, | 1,800 150 | 16 1,200 |
| Gloucester, ² | Thomson-Houston, | 1,300 60 | 16 1,500 |
| Great Barrington, | { Schuyler, Edison, Westinghouse, | 500 1,550 45 | 16 16 1,200 |
| Greenfield, | { Thomson-Houston, Westinghouse, | 800 750 75 | 16 16 2,000 |
| Haverhill, ³ | { Thomson-Houston, Brush, | 95 2,000 50 | 1,200 16 2,000 |
| Holyoke, | { Schuyler, Edison, | 365 291 1,000 | 2,000 1,200 16 |
| Hudson, | Thomson-Houston, | 45 650 | 1,200 16 |
| Hull, ⁴ | Westinghouse, | 3,000 200 | 16 2,000 |
| Hyde Park, | Thomson-Houston, | 3,900 350 | 16 2,000 |
| Lawrence, | { Thomson-Houston, Fort Wayne, Edison, | 35 400 5,600 | 2,000 20 16 |
| Lee, | Thomson-Houston, | 30 1,650 | 1,200 16 |
| Leicester, | Thomson-Houston, | 1,550 100 | 16 1,200 |
| Leominster, | Thomson-Houston, | 1,950 700 | 16 2,000 |
| Lowell, ⁵ | { Thomson-Houston, Edison, | 5,600 100 525 | 16 2,000 2,000 |
| Lynn, ⁶ | Thomson-Houston, | 190 5,250 245 | 1,200 16 1,200 |
| Malden, ⁷ | Thomson-Houston, | 6,200 250 | 16 1,200 |
| Marlborough, | { Schuyler, Edison, | 250 1,000 35 | 1,200 16 1,200 |
| Middleborough, | { Thomson-Houston, Waterhouse, | 650 35 50 | 16 1,700 1,200 |
| Millbury, | Thomson-Houston, | 650 95 | 16 1,200 |
| Milford, | Thomson-Houston, | 1,700 1,650 | 16 16 |
| Milton, | Thomson-Houston, | 1,650 75 | 1,200 1,200 |
| Nantucket, | Thomson-Houston, | 1,150 | 16 |

¹ Power generator 80 H. P.³ Power generators 100 K. W.² Power generators 100 H. P.⁴ Power generator 60 K. W.⁵ Power generators 400 H. P.⁶ Power generators 255 H. P.⁷ Power generator 85 H. P.

| COMPANY. | System used. | Maximum Dynamo Capacity. | Nominal Candle- power. |
|--------------------------------------|--------------------------|--------------------------------|------------------------------|
| Natick, ¹ | Thomson-Houston, . . | 90 | 1,200 |
| | | 2,600 | 16 |
| | Thomson-Houston, . . | 350 | 2,000 |
| | | 118 | 1,200 |
| New Bedford, ² | American, | 110 | 2,000 |
| | Westinghouse, | 100 | 1,600 |
| | Edison, | 5,800 | 16 |
| | | 7,440 | 16 |
| Newburyport, ³ | Thomson-Houston, . . | 210 | 1,200 |
| | | 400 | 16 |
| | Mather, | 150 | 16 |
| Newton, | Thomson-Houston, . . | 145 | 1,200 |
| | | 5,000 | 16 |
| North Adams, | Thomson-Houston, . . | 180 | 1,200 |
| | | 1,000 | 16 |
| Northampton, | Thomson-Houston, . . | 190 | 1,200 |
| | | 1,950 | 16 |
| North Attleborough, . . | Schuyler, | 90 | 1,200 |
| | Thomson-Houston, . . | 310 | 1,200 |
| | Westinghouse, | 1,000 | 16 |
| North Shore (Revere), ² | Thomson-Houston, . . | 200 | 1,200 |
| | | 3,300 | 16 |
| Orange, | Thomson-Houston, . . | 50 | 1,200 |
| | | 1,150 | 16 |
| Palmer, | Thomson-Houston, . . | 50 | 1,200 |
| | | 1,300 | 16 |
| Pittsfield, ⁴ | Thomson-Houston, . . | 170 | 1,200 |
| | Westinghouse, | 4,850 | 16 |
| Plymouth, ⁵ | Thomson-Houston, . . | 150 | 1,200 |
| | | 1,000 | 16 |
| Quincy, | Thomson-Houston, . . | 150 | 1,200 |
| | Westinghouse, | 1,000 | 16 |
| | | 1,600 | 16 |
| Salem, ⁴ | Thomson-Houston, . . | 360 | 2,000 |
| | | 5,900 | 16 |
| Somerville, | Thomson-Houston, . . | 545 | 1,200 |
| | | 4,800 | 16 |
| Southbridge, | Thomson-Houston, . . | 100 | 1,200 |
| | | 600 | 16 |
| South Hadley Falls, . . | Thomson-Houston, . . | 1,400 | 16 |
| Spencer, | Ball, | 70 | 1,200 |
| Stoughton, | Ball, | 70 | 800 |
| | | 200 | 2,000 |
| Suburban (Boston), ⁷ . . | American, | 75 | 1,200 |
| | Westinghouse, | 4,850 | 16 |
| | Brush, | 95 | 2,000 |
| | Thomson-Houston, . . | 900 | 16 |
| | Brush, | 270 | 1,200 |
| Taunton, | Westinghouse, | 2,000 | 16 |
| | Thomson-Houston, . . | 2,000 | 16 |
| | Arnoux and Hochhausen, . | 10 | 2,000 |
| Union (Franklin), . . . | Thomson-Houston, . . | 50 | 1,200 |
| | | 1,150 | 16 |
| | Edison, | 45 | 1,200 |
| United (Springfield), ⁶ . | Westinghouse, | 6,650 | 16 |
| | | 690 | 1,200 |
| | Thomson-Houston, . . | 2,000 | 16 |
| Uxbridge and Northbridge, | Westinghouse, | 120 | 2,000 |
| | | 1,500 | 16 |

¹ Power generator 125 H. P.² Power generator 25 K. W.³ Power generators 252 K. W.⁴ Power generators 190 K. W.⁵ Power generators 180 H. P.⁶ Power generators 220 H. P.⁷ Power generators 85 H. P.⁸ Power generators 1,030 H. P.

| COMPANY. | System used. | Maximum Dynamo Capacity. | Nominal Candle- power. |
|---------------------------------|------------------------|--------------------------------|------------------------------|
| Waltham, ¹ | Thomson-Houston, . . | 245 3,950 | 1,200 16 |
| Ware, | Thomson-Houston, . . | 50 650 | 1,200 16 |
| Webster, | Thomson-Houston, . . | 80 500 | 1,200 16 |
| Westborough, | Thomson-Houston, . . | 50 1,100 | 1,200 16 |
| Westfield, | { Schuyler, | 70 45 | 2,000 1,200 |
| | { Thomson-Houston, . . | 1,150 | 16 |
| Weymouth, | Thomson-Houston, . . | 200 1,300 | 1,200 16 |
| Whitman, | Thomson-Houston, . . | 100 1,500 | 1,200 16 |
| Winchendon, | Thomson-Houston, . . | 50 650 | 1,200 16 |
| | { Thomson-Houston, . . | 185 100 | 2,000 1,200 |
| Woburn, ² | { Brush, | 2,700 45 | 16 1,200 |
| | { Edison, | 800 | 16 |
| Worcester, ³ | Thomson-Houston, . . | 820 4,000 | 2,000 16 |

¹ Power generators 340 H. P.² Power generators 250 H. P.³ Power generator 125 H. P.

The following table shows the number of electric lights of various candle-power which represent the dynamo capacity of all the companies June 30, 1891, 1892 and 1893:—

| | 1891. | 1892. | 1893. |
|----------------------------|---------|---------|---------|
| 16 candle-power, | 181,270 | 214,700 | 292,340 |
| 20 " " | 8,530 { | 900 | 400 |
| 25 " " | | 600 | — |
| 15 " " | | 836 | 836 |
| 2,000 " " | 8,401 | 9,633 | 9,910 |
| 1,200 " " | 6,447 | 8,499 | 9,121 |
| 1,600 " " | 160 | 160 | 160 |
| 1,500 " " | 60 | 60 | 60 |
| 1,800 " " | 200 { | 35 | 35 |
| 1,700 " " | | 125 | 35 |
| 800 " " | 70 | 70 | 70 |

The following table shows the number of boilers, their total rated horse-power, the number of engines and the total rated horse-power of the same, and the number of dynamos of the different companies on June 30 last; also the amount of fuel used during the year ending on that day:—

| COMPANY. | Number of Boilers. | Total rated Horse-power. | Number of Engines. | Total rated Horse-power. | Number of Dynamos. | Coal used. Tons. |
|----------------------------------|--------------------|--------------------------|--------------------|--------------------------|--------------------|---------------------|
| Abington and Rockland, | 2 | 150 | 2 | 375 | 6 | 998 |
| Adams, | 2 | 150 | 2 | 225 | 3 | 860 ¹ |
| Amherst, | 1 | 100 | 1 | 75 | 1 | 268 ¹ |
| Amesbury, | 3 | 375 | 3 | 435 | 6 | 1,284 |
| Andover, | 3 | 350 | 2 | 180 | 3 | 1,683 |
| Athol, | 1 | 120 | 1 | 65 | 1 | 161 |
| Beverly, | 1 | 104 | 1 | 175 | 4 | 358 ¹ |
| Blue Hill (Canton), | 1 | 135 | 1 | 135 | 2 | 305 |
| Boston, | 36 | 5,325 | 45 | 5,865 | 110 | 21,906 ¹ |
| Bridgewater, | 2 | 200 | 1 | 80 | 2 | 304 |
| Brookline, | 5 | 625 | 3 | 760 | 12 | — |
| Cambridge, | 8 | 1,000 | 6 | 1,140 | 20 | 4,350 |
| Charlestown, | 5 | 625 | 6 | 435 | 11 | 2,493 |
| Chelsea, | 3 | 600 | 5 | 694 | 9 | 1,381 |
| Chicopee, | 1 | — | 2 | 165 | 2 | — |
| Citizens' (Wakefield), | 2 | 250 | 2 | 280 | 4 | 750 |
| Clinton, | 2 | 250 | 2 | 325 | 6 | 1,020 ¹ |
| Cohasset, | 1 | 150 | 2 | 180 | 3 | 256 |
| Cottage City, | 1 | 60 | 1 | 50 | 2 | 56 |
| Dedham, | 2 | 220 | 2 | 200 | 4 | 477 ¹ |
| Easthampton, | 1 | 60 | 1 | 45 | 1 | 118 |
| Edison (Boston), | 21 | 5,224 | 36 | 6,920 | 72 | 27,103 |
| Edison (Brockton), | 6 | 720 | 8 | 925 | 15 | 2,993 |
| Edison (Fall River), | 5 | 712 | 5 | 635 | 10 | 17,734 |
| Eliot Falls, | 1 | — | 1 | — | 1 | — |
| Fall River, | 3 | 600 | 6 | 650 | 14 | 1,995 |
| Fitchburg, | 3 | 300 | 4 | 450 | 8 | 593 |
| Frammingham, | 2 | 250 | 2 | 250 | 7 | 974 ¹ |
| Franklin, | 11 | — | — | — | 2 | — |
| Gardner, | 2 | 160 | 3 | 200 | 5 | 650 |
| Gloucester, | 3 | 375 | 3 | 550 | 6 | 877 |
| Great Barrington, | 2 | 195 | 2 | 170 | 6 | 619 |
| Greenfield, | 2 | 225 | 3 | 225 | 4 | 933 |
| Haverhill, | 4 | 600 | 2 | 600 | 7 | 750 |
| Holyoke, | 5 | 825 | 14 | 800 | 24 | 206 |
| Hudson, | 1 | 80 | 1 | 60 | 2 | 198 |
| Hull, | 2 | 300 | 3 | 455 | 6 | 210 |
| Hyde Park, | 3 | 450 | 3 | 600 | 7 | 853 |
| Lawrence, | 7 | 884 | 10 | 1,100 | 18 | 2,954 |
| Lee, | 3 | 260 | 17 | 270 | 4 | 480 |
| Leicester, | 2 | 230 | 18 | 210 | 3 | 295 ¹ |
| Leominster, | 2 | 250 | 3 | 600 | 4 | 1,264 |
| Lexington, | 1 | 125 | 2 | 160 | 2 | 130 |

¹ Also 27 tons dust.² Also 227½ chaldrons coke.³ Steam bought.⁴ Also 192 tons screenings and sparks.⁵ Also 33,362 bushels coke.⁶ 2 water wheels 100 H. P.⁷ Also 5 cords wood.⁸ Also 246½ tons screenings⁹ Also 1 water wheel 60 H. P.¹⁰ 206,422 bushels coke.¹¹ Also 326 tons screenings and 124 chaldrons coke.¹² Also 68 tons screenings.¹³ 1 water wheel 140 H. P.¹⁴ Also 518 tons other fuel.¹⁵ Also 426 tons screenings.¹⁶ Also 4 water wheels 1,120 H. P.¹⁷ Also 47 chaldrons coke.¹⁸ Also 2 water wheels 60 H. P.

| COMPANY. | Number of Boilers. | Total rated Horse-power. | Number of Engines. | Total rated Horse-power. | Number of Dynamos. | Coal used. Tons. |
|-------------------------------------|--------------------|--------------------------|--------------------|--------------------------|--------------------|----------------------------------|
| Lowell, | 7 | 1,050 | 3 | 1,050 | 25 | 5,059 |
| Lynn, | 7 | 900 | 5 | 1,150 | 24 | 3,779 ¹ |
| Malden, | 6 | 750 | 7 | 775 | 13 | 4,008 |
| Marlborough, | 2 | 210 | 3 | 200 | 8 | 1 482 ¹ |
| Middleborough, | 1 | 100 | ² 2 | 90 | 3 | ³ 256 |
| Milford, | 2 | 160 | 3 | 270 | 6 | 688 |
| Millbury, | 2 | 130 | 2 | 100 | 2 | 494 |
| Milton, | 1 | 120 | 1 | 150 | 2 | 538 ⁴ |
| Nantucket, | 2 | 205 | 2 | 150 | 4 | ⁵ 668 ⁴ |
| Natick, | 2 | 250 | 2 | 300 | 5 | ⁶ 700 |
| New Bedford, | 12 | 1,528 | 14 | 2,255 | 35 | 5,619 |
| Newburyport, | 2 | 200 | 3 | 215 | 8 | ⁷ 485 |
| Newton, | 4 | 600 | 3 | 935 | 8 | ⁸ 1,682 |
| North Adams, | 1 | 150 | 2 | 225 | 5 | ⁹ 350 |
| Northampton, | 3 | 280 | 3 | 305 | 7 | ¹⁰ 800 |
| North Attleborough, | 4 | 620 | ¹⁰ 5 | 840 | 10 | 4,980 |
| North Shore, | 4 | 455 | 4 | 795 | 8 | ¹¹ 897 |
| Orange, | 2 | 120 | 2 | 185 | 4 | 500 |
| Palmer, | 1 | 125 | ¹² 1 | 120 | 2 | 550 |
| Pittsfield, | 5 | 535 | 7 | 940 | 13 | 2,981 |
| Plymouth, | 2 | 250 | 3 | 625 | 7 | 1,044 |
| Quincy, | 3 | 375 | 4 | 550 | 6 | 2,104 |
| Salem, | 8 | 1,000 | 4 | 1,360 | 17 | 5,500 |
| Somerville, | 4 | 800 | 4 | 605 | 15 | ¹³ 1,698 ¹ |
| Southbridge, | 2 | 185 | 2 | 185 | 3 | 471 ² |
| South Hadley Falls, | ¹⁴ — | — | 1 | 100 | 2 | ¹⁴ — |
| Spencer, | — | — | 3 | 45 | 2 | ¹⁵ — |
| Stoughton, | 1 | 60 | 1 | 50 | 1 | 184 |
| Suburban (Boston), | 10 | 710 | 6 | 1,150 | 18 | 4,666 |
| Taunton, | 3 | 675 | 3 | 665 | 9 | 1,026 ³ |
| Union (Franklin), | 2 | 200 | 2 | 150 | 3 | 486 |
| United (Springfield), | 7 | 1,760 | 5 | 2,150 | 31 | 7,570 |
| Uxbridge and Northbridge, | 2 | 200 | 2 | 185 | 4 | 560 |
| Waltham, | 6 | 781 | 5 | 775 | 12 | ¹⁶ 1,690 ⁴ |
| Ware, | 1 | 125 | 1 | 125 | 2 | ¹⁷ 290 |
| Webster, | 2 | 205 | 2 | 140 | 3 | 447 |
| Westborough, | 2 | 160 | 2 | 150 | 3 | 480 ⁵ |
| Westfield, | 2 | 140 | 2 | 140 | 5 | ¹⁸ 320 |
| Weymouth, | 2 | 300 | 2 | 325 | 8 | ¹⁹ 682 |
| Whitman, | ¹⁴ — | — | 2 | 390 | 4 | ¹⁴ — |
| Winchendon, | ¹⁴ — | — | 1 | 100 | 2 | ¹⁴ — |
| Woburn, | 5 | 700 | 5 | 900 | 13 | ²⁰ 2,851 |
| Worcester, | 8 | 1,200 | 3 | 1,400 | 25 | 3,765 |

¹ Also 291 tons screenings.² Also 44 cords wood and 892 gallons oil.³ Also 1,204 tons other fuel.⁴ Also 1,603 tons coke.⁵ Also 100 cords wood.⁶ Also 187 $\frac{1}{2}$ tons screenings.⁷ Also 172 tons other fuel.⁸ 1,227,300 ft. gas used in gas engines.⁹ Also 6 cords wood.¹⁰ Also 673 tons screenings.¹¹ Also 2 water wheels 180 H. P.¹² Also 7 $\frac{1}{2}$ tons screenings.¹³ Also 52 tons other fuel.¹⁴ Also 39,328 bushels coke.¹⁵ Also water wheels 40 H. P.¹⁶ Also 2 water wheels 300 H. P.¹⁷ Steam bought.¹⁸ Also 44,375 bushels coke.¹⁹ Also 80 $\frac{1}{2}$ tons coke.²⁰ Also 224 tons screenings.

The following table shows, in feet, the total length of wire; the length of underground conduit, the length of the wires in the same; the number of poles set in streets and ways, and the length of streets with overhead wires of each company, on June 30 last:—

| COMPANY. | Total Length of Wire. Feet. | Length of Wires in Conduit. Feet. | Length of Under- ground Conduit. Feet. | Number of Poles set in Streets. | Length of Street with over- head Wires. Feet. |
|--------------------------------------|-----------------------------------|--|--|--|---|
| Abington and Rockland, | 269,000 | — | — | 1,395 | 157,000 |
| Adams, | 26,500 | — | — | 160 | 29,700 |
| Amherst, | 48,950 | — | — | ¹ 81 | 21,120 |
| Amesbury, | 204,000 | — | — | ² 289 | 68,640 |
| Andover, | 95,056 | — | — | 503 | 35,000 |
| Athol, | 30,000 | — | — | 175 | 30,000 |
| Beverly, | 193,834 | — | — | 601 | 86,254 |
| Blue Hill (Canton), | 236,084 | — | — | ³ 650 | 200,160 |
| Boston, | 3,813,279 | — | — | ⁴ 1,401 | — |
| Bridgewater, | 101,480 | — | — | 213 | 96,360 |
| Brookline, | 1,020,900 | — | — | ⁵ 1,230 | 228,000 |
| Cambridge, | 848,000 | — | — | 1,824 | 250,000 |
| Charlestown, | 383,180 | — | — | 325 | — |
| Chelsea, | 520,980 | — | — | 1,634 | 179,520 |
| Chicopee, | 95,040 | — | — | 350 | 47,500 |
| Citizens' (Wakefield), | 317,240 | — | — | ⁶ 600 | 81,840 |
| Clinton, | 151,834 | — | — | 650 | 90,700 |
| Cohasset, | 330,570 | — | — | ⁷ 914 | 103,098 |
| Cottage City, | 36,900 | — | — | ⁸ 75 | 21,400 |
| Dedham, | 670,105 | — | — | 1,424 | 193,248 |
| Easthampton, | 28,000 | — | — | 228 | 28,000 |
| Edison (Boston), | 1,139,777 | 1,098,777 | 277,965 | 86 | 9,000 |
| Edison (Brookton), | 482,618 | 21,000 | 7,000 | 1,790 | 198,000 |
| Edison (Fall River), | 106,425 | 82,425 | 27,475 | ⁹ 77 | 18,000 |
| Fall River, | 485,760 | — | — | ¹⁰ 1,375 | 200,640 |
| Fitchburg, | 374,000 | — | — | ¹¹ 700 | 93,190 |
| Framingham, | 506,880 | — | — | 11,500 | 132,000 |
| Franklin (Turner's Falls), | 12,000 | — | — | ¹² 86 | 9,000 |
| Gardner, | 207,856 | — | — | ¹³ 450 | 53,000 |
| Gloucester, | 145,000 | — | — | ¹⁴ 175 | 100,000 |
| Great Barrington, | 83,100 | 450 | 450 | ¹⁵ 179 | 46,120 |
| Greenfield, | 44,000 | — | — | 200 | 30,000 |
| Haverhill, | 247,200 | — | — | ¹⁶ 500 | 158,400 |
| Holyoke, | 323,700 | — | — | 1,020 | 105,000 |
| Hudson, | 35,285 | — | — | 71 | 10,783 |
| Hull, | 268,275 | — | — | 792 | 83,475 |
| Hyde Park, | 325,840 | — | — | ¹⁷ 797 | 85,800 |
| Lawrence, | 864,700 | — | — | ¹⁸ 1,739 | 249,640 |
| Lee, | 99,000 | — | — | ¹⁹ 322 | 42,240 |
| Leicester, | 195,300 | — | — | 481 | 61,000 |

¹ 95 poles set elsewhere.

² 40 poles set elsewhere.

³ 92 poles set elsewhere.

⁴ 40 poles set elsewhere.

⁵ 25 poles set elsewhere.

⁶ 80 poles set elsewhere.

⁷ 21 poles set elsewhere.

⁸ 26 poles set elsewhere.

⁹ 18 poles set elsewhere.

¹⁰ 22 poles set elsewhere.

² 24 poles set elsewhere.

³ 93 poles set elsewhere.

⁴ 10 poles set elsewhere.

⁵ 33 poles set elsewhere.

⁶ 5 poles set elsewhere.

⁷ 8 poles set elsewhere.

⁸ 30 poles set elsewhere.

⁹ 50 poles set elsewhere.

¹⁰ 19 poles set elsewhere.

| COMPANY. | Total Length of Wire. Feet. | Length of Wires in Conduit. Feet. | Length of Under- ground Conduit. Feet. | Number of Poles set in Streets. | Length of Street with over- head Wires. Feet. |
|-------------------------------------|-----------------------------------|--|--|--|---|
| Leominster, | 324,120 | - | - | ¹ 597 | 65,000 |
| Lexington, | 132,000 | - | - | ² 317 | 31,680 |
| Lowell, | 696,905 | - | - | ¹ 1,100 | 295,680 |
| Lynn, | 1,516,220 | - | - | ³ 3,300 | 528,000 |
| Malden, | 2,276,240 | - | - | ³ 6,500 | 633,600 |
| Marlborough, | 178,878 | - | - | ⁴ 410 | 84,000 |
| Middleborough, | 82,200 | - | - | ⁵ 335 | - |
| Milford, | - | - | - | - | - |
| Milbury, | 75,480 | - | - | ⁶ 154 | 27,270 |
| Milton, | 828,960 | - | - | ⁶ 75 | 396,000 |
| Nantucket, | 182,840 | - | - | ⁷ 309 | 147,840 |
| Natick, | 316,800 | - | - | ⁷ 600 | 63,360 |
| New Bedford, | 746,871 | - | - | ⁸ 1,034 | 175,125 |
| Newburyport, | 131,200 | - | - | ⁸ 450 | 155,000 |
| Newton, | 1,099,800 | - | - | ⁹ 3,840 | 374,880 |
| North Adams, | 134,400 | - | - | ⁴ 351 | 60,000 |
| Northampton, | 380,926 | - | - | ⁷ 750 | 135,500 |
| North Attleborough, | 422,536 | - | - | ¹⁰ 873 | 101,452 |
| North Shore, | 792,360 | - | - | ¹¹ 1,413 | 203,280 |
| Orange, | 70,392 | - | - | ⁷ 500 | 33,800 |
| Palmer, | 121,160 | - | - | ⁷ 707 | 94,200 |
| Pittsfield, | 393,130 | 1,000 | 500 | ¹² 944 | 124,340 |
| Plymouth, | 112,690 | - | - | ¹⁰ 407 | 64,027 |
| Quincy, | 579,680 | - | - | ¹¹ 1,475 | 279,840 |
| Salem, | 499,410 | - | - | ³ 1,980 | 234,942 |
| Somerville, | 1,372,613 | - | - | ¹² 2,745 | 318,238 |
| Southbridge, | 117,542 | - | - | ⁴ 415 | 18,480 |
| South Hadley Falls, | 44,800 | - | - | ⁶ 261 | 44,000 |
| Spencer, | 41,676 | - | - | ¹⁴ 397 | 40,000 |
| Stoughton, | 69,905 | - | - | ³ 300 | 69,905 |
| Suburban (Boston), | 321,520 | - | - | - | 20,000 |
| Taunton, | 123,500 | - | - | ⁵ 500 | 58,000 |
| Union (Franklin), | 118,248 | - | - | ⁹ 350 | 44,800 |
| United (Springfield), | 624,412 | 65,328 | 9,660 | ⁶ 727 | 208,750 |
| Uxbridge and Northbridge, | 170,440 | - | - | ⁶ 500 | 63,000 |
| Waltham, | 228,965 | - | - | ¹³ 548 | 67,770 |
| Ware, | 72,800 | - | - | ⁴ 286 | 19,700 |
| Webster, | 87,840 | - | - | ³ 345 | 50,000 |
| Westborough, | 103,560 | - | - | ⁴ 249 | 28,075 |
| Westfield, | 90,070 | - | - | ¹¹ 278 | 44,680 |
| Weymouth, | 779,440 | - | - | ¹¹ 1,675 | - |
| Whitman, | 189,240 | - | - | ⁷ 570 | 130,040 |
| Winchendon, | 151,705 | - | - | ¹² 343 | - |
| Woburn, | 823,601 | - | - | ¹⁷ 3,247 | 390,720 |
| Worcester, | 704,250 | - | - | ¹⁸ 2,234 | 217,500 |

¹ 8 poles set elsewhere.² 20 poles set elsewhere.³ 6 poles set elsewhere.⁷ 10 poles set elsewhere.⁹ 25 poles set elsewhere.¹¹ 14 poles set elsewhere.¹³ 60 poles set elsewhere.¹⁵ 23 poles set elsewhere.¹⁷ 106 poles set elsewhere.² 3 poles set elsewhere.⁴ 15 poles set elsewhere.⁶ 13 poles set elsewhere.⁸ 27 poles set elsewhere.¹⁰ 89 poles set elsewhere.¹² 30 poles set elsewhere.¹⁴ 4 poles set elsewhere.¹⁶ 28 poles set elsewhere.

The following table shows the number of motors furnished off arc, incandescent and power circuits, the number of single and double arc lamps, June 30, 1893, and the number of carbons used during the year ending on that day:—

| COMPANY. | Motors off Arc Circuits. | Motors off Incandescent Circuits. | Motors off Power Circuits. | Horse-power of Motors. | Number of Single Arc Lamps. | Number of Double Arc Lamps. | Number of Carbons Used. |
|--------------------------------------|--------------------------|-----------------------------------|----------------------------|------------------------|-----------------------------|-----------------------------|-------------------------|
| Abington and Rockland, | - | - | - | - | - | 29 | 4,907 |
| Adams, | - | - | 1 | - | - | 40 | 11,000 |
| Amherst, | - | - | - | - | - | - | - |
| Amesbury, | - | - | 17 | 62 | 72 | 4 | 21,083 |
| Andover, | - | - | - | - | 3 | 31 | 13,870 |
| Athol, | - | - | - | - | 37 | 10 | 12,000 |
| Beverly, | - | - | - | - | 22 | 82 | 33,000 |
| Blue Hill (Canton), | - | - | - | - | 45 | - | 8,000 |
| Boston, | - | - | - | - | 954 | 2,299 | 2,096,599 |
| Bridgewater, | - | - | - | - | 32 | 3 | 8,329 |
| Brookline, | - | - | 6 | 88 | - | 311 | 106,006 |
| Cambridge, | - | - | 52 | 104 | 42 | 444 | 337,583 |
| Charlestown, | 1 | - | - | 1 | 45 | 183 | 203,319 |
| Chelsea, | - | - | 10 | 47½ | 100 | 200 | 92,000 |
| Chicopee, | - | - | - | - | 106 | - | 27,300 |
| Citizens' (Wakefield), | - | 1 | - | 2 | - | 12 | 3,500 |
| Clinton, | - | - | - | - | 11 | 41 | 32,324 |
| Cohasset, | - | - | - | - | - | - | - |
| Cottage City, | - | - | - | - | 58 | - | 6,300 |
| Dedham, | - | - | - | - | - | 32 | 14,514 |
| Easthampton, | - | - | - | - | 33 | - | 7,000 |
| Edison (Boston), | - | - | - | 3,646 | 522 | 45 | 234,580 |
| Edison (Brockton), | - | 36 | 12 | 246 | 156 | 4 | 65,870 |
| Edison (Fall River), | - | 156 | - | 168 | - | - | - |
| Fall River, | - | - | - | - | 153 | 376 | 370,000 |
| Fitchburg, | 1 | - | 2 | 21½ | 70 | 192 | 94,633 |
| Frammingham, | - | - | - | - | 4 | 68 | 21,565 |
| Franklin (Turner's Falls), | - | - | - | - | 22 | - | 10,000 |
| Gardner, | - | - | - | - | 81 | 50 | 22,260 |
| Gloucester, | - | - | 12 | 46 | 38 | 35 | 25,000 |
| Great Barrington, | - | - | - | - | 38 | - | 10,100 |
| Greenfield, | - | 6 | - | 25 | 56 | 3 | 20,000 |
| Haverhill, | - | - | 34 | 40 | 75 | 100 | 125,000 |
| Holyoke, | - | 7 | - | 45 | 230 | 195 | 170,000 |
| Hudson, | - | - | - | - | 20 | 4 | 10,000 |
| Hull, | - | - | - | - | 1 | - | 40 |
| Hyde Park, | - | - | - | - | 46 | 111 | 42,643 |
| Lawrence, | - | 61 | - | 140 | 200 | 114 | 129,000 |
| Leominster, | - | - | 1 | - | 20 | 90 | 34,029 |
| Lexington, | - | - | - | - | 5 | 33 | 2,000 |
| Lowell, | - | - | 93 | 424 | 368 | 292 | 403,000 |
| Lynn, | - | - | 47 | 363 | 194 | 378 | 310,000 |
| Malden, | - | - | 5 | 8½ | 175 | 38 | 70,090 |
| Marlborough, | - | - | - | - | 82 | 55 | 49,680 |

¹ Street railway motors only.

| COMPANY. | Motors of Arc Circuits. | Motors of Incandescent Circuits. | Motors of Power Cir- cuits. | Horse Power of Motors. | Number of Single Arc Lamps. | Number of Double Arc Lamps. | Number of Carbons Used. |
|-------------------------------------|----------------------------|--|-----------------------------------|---------------------------|--------------------------------------|--------------------------------------|----------------------------------|
| Milford, | - | 9 | - | 21½ | 65 | - | 21,129 |
| Millbury, | - | 1 | - | 1 | 28 | - | 7,232 |
| Nantucket, | - | - | - | - | 45 | - | - |
| Natick, | - | - | 14 | 60 | 7 | 34 | 11,830 |
| New Bedford, | - | 30 | 40 | 231½ | 386 | 160 | 143,171 |
| Newburyport, | - | 8 | - | 7½ | 158 | 7 | 60,800 |
| Newton, | - | - | - | - | - | 108 | 46,586 |
| North Adams, | - | - | - | - | 90 | 94 | 78,500 |
| Northampton, | - | - | - | - | 144 | - | 40,000 |
| North Attleborough, | 13 | - | - | 37 | 136 | 7 | 44,050 |
| North Shore, | - | - | - | - | 14 | 56 | 21,067 |
| Orange, | - | - | - | - | - | 30 | 12,310 |
| Palmer, | - | - | - | - | - | 35 | 9,000 |
| Pittsfield, | - | 2 | 15 | 141 | 112 | 46 | 70,500 |
| Plymouth, | - | - | 11 | 130½ | 32 | 8 | 10,000 |
| Quincy, | - | - | 11 | 25½ | - | 96 | 33,170 |
| Salem, | - | - | 24 | 153½ | 115 | 186 | 167,444 |
| Somerville, | 15 | - | - | 40 | 19 | 424 | 184,000 |
| Southbridge, | - | - | - | - | 78 | 6 | 28,000 |
| South Hadley Falls, | - | - | - | - | - | - | - |
| Spencer, | - | - | - | - | 71 | - | 23,000 |
| Stoughton, | - | - | - | - | 67 | - | 10,000 |
| Suburban (Boston), | - | 24 | 42 | 184½ | 175 | 50 | 12,600 |
| Taunton, | - | - | - | - | 113 | 93 | 70,000 |
| Union (Franklin), | - | - | - | - | 44 | 2 | 1,840 |
| United (Springfield), | - | - | 57 | 243½ | 296 | 497 | 355,538 |
| Uxbridge and Northbridge, | - | - | - | - | 65 | - | 4,250 |
| Waltham, | - | - | 20 | 64 | 105 | 67 | 75,032 |
| Ware, | - | - | - | - | 38 | 3 | 15,000 |
| Webster, | - | - | - | - | 25 | 53 | 27,240 |
| Westborough, | - | - | - | - | 32 | - | 10,000 |
| Westfield, | - | - | - | - | 100 | 10 | 31,985 |
| Weymouth, | - | - | - | - | 1 | 36 | 6,051 |
| Whitman, | - | - | - | - | 46 | 7 | 9,815 |
| Winchendon, | - | - | - | - | 23 | 12 | 10,080 |
| Woburn, | - | - | 6 | 30½ | 40 | 96 | 69,145 |
| Worcester, | - | - | - | - | 300 | 400 | 524,908 |

¹ Also street railway motors.² Street railway motors only.

The following table shows the number of commercial lights of the different kinds, and the number of customers for each kind, on June 30 last: —

| COMPANY. | Number of Commercial Lamps. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Lamps. | Number of Commercial Incandescent Lights. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Incandescent Lights. | Number of Commercial Incandescent Lights off Are Circuits. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Incandescent Lamps off Are Cir- cuits. | Number of Consumers using Both Arc and Incandescent Lights. | Number of Customers using only Power. |
|--|--------------------------------|---------------------------|--|--|---------------------------|---|--|---------------------------|--|---|--|
| Abington and Rockland, Adams, | - | - | - | 4,400 310 | 16 16 | 250 57 | - | - | - | - | 1 |
| Amherst, | - | - | 1 | 4 32 1,438 | 32 20 16 | - | - | - | - | - | - |
| Amesbury, | 14 | 1,200 | 2 | 960 27 | 16 20 | 110 | - | - | - | 7 | 8 |
| Andover, | - | - | - | 22 260 | 32 10 | 113 | - | - | - | - | - |
| Athol, | 6 | 1,200 | 4 | 578 | 16 | 42 | 1 | 32 | - | 8 | - |
| Beverly, | 21 | 2,000 | 5 | 2,000 | 16 | 51 | - | 16 | - | - | - |
| Blue Hill, | - | - | - | 6,372 | 16 | 2 | 9,425 263 113 65 113 | 25 32 50 65 | 2 | 61 | 116 |
| Boston, | 1,275 | 2,000 | 217 | 41 4 18 1,486 | 32 50 125 16 | 67 | - | - | - | 2 | - |
| Bridgewater, | - | - | - | 50 5 | 32 150 | - | - | - | - | 2 | - |
| Brookline, | 33 | 2,000 | 30 | 8,200 | 16 | 176 | - | - | - | 2 | 6 |
| Cambridge, | 42 | 1,200 | 54 | 5,800 42 | 16 40 | 343 | 24 | 65 | 24 | 18 | 52 |
| Charlestown, | 101 | 2,000 | 25 | 360 | 16 | 24 | 5 1 | 32 65 | 1 | 7 | - |

| | | | | | | | | | | | | | |
|------------------------|-----|-------|-----|--------|----|-------|----|----|----|-----|-----|----|---|
| Chelsea, | 87 | 1,200 | 17 | 3,400 | 16 | 133 | - | - | - | - | - | 11 | 4 |
| Chilcopee, | - | - | - | - | 16 | - | - | - | - | - | - | - | - |
| Citizens' (Wakefield), | 3 | 1,200 | - | 914 | 16 | 84 | 4 | 25 | - | - | - | 1 | 1 |
| Clinton, | 11 | 1,200 | 4 | 62 | 32 | 89 | 68 | 25 | 2 | 2 | 2 | 2 | - |
| Cohasset, | - | - | - | 2,211 | 16 | 26 | - | - | - | - | - | - | - |
| Cottage City, | 35 | 1,600 | 10 | 576 | 32 | - | - | - | - | - | - | - | - |
| Dedham, | 10 | 1,200 | - | 7 | - | - | - | - | - | - | - | 3 | - |
| Easthampton, | - | - | - | 2,243 | 16 | 134 | - | - | - | - | - | - | - |
| Edison (Boston), | 332 | 1,200 | 111 | - | 16 | 2,746 | - | - | 88 | 115 | 567 | - | - |
| Edison (Brockton), | 215 | 2,000 | 17 | 78,995 | 16 | 358 | - | - | - | 46 | 55 | - | - |
| Edison (Fall River), | 95 | 2,000 | - | 7,763 | 16 | 619 | - | - | - | - | 18 | - | - |
| Fall River, | 153 | 1,200 | 31 | 338 | 16 | 18 | - | - | - | - | - | - | - |
| Fitchburg, | 19 | 2,000 | 18 | 37 | 32 | 102 | - | - | 2 | 6 | 3 | - | - |
| Framingham, | 14 | 1,200 | - | 628 | 25 | - | - | - | - | - | - | - | - |
| Franklin, | 53 | 1,200 | - | 732 | 16 | - | - | - | - | - | - | - | - |
| Gardner, | 37 | 1,200 | 1 | 1,274 | 10 | 24 | 28 | 20 | - | 20 | - | - | - |
| Gloucester, | 8 | 1,500 | 7 | 1,987 | 16 | 127 | 38 | 65 | 21 | 10 | 10 | - | - |
| Great Barrington, | 18 | 1,200 | 1 | 94 | 20 | 100 | 19 | 32 | - | 3 | - | - | - |
| Greenfield, | 78 | 1,200 | - | 50 | 32 | 73 | 9 | 60 | - | 7 | 2 | - | - |
| Haverhill, | 85 | 1,200 | 14 | 100 | 20 | 103 | 3 | 32 | - | 16 | 8 | - | - |
| Holyoke, | 217 | 2,000 | 85 | 325 | 16 | 73 | - | - | - | 15 | 7 | - | - |
| | | | | 2,305 | 16 | | | | | | | | |

| | | | | | | | | | | |
|---------------------|-----|-------|----|-------|----|-----|---|-----|----|----|
| New Bedford, | 86 | 1,200 | 00 | 5,841 | 16 | 697 | - | - | 45 | 28 |
| Newburyport, | 100 | 1,600 | 7 | 3 | 16 | 79 | { | 32 | 6 | 4 |
| Newton, | 26 | 1,200 | 1 | 296 | 20 | 204 | { | 65 | 1 | - |
| North Adams, | 2 | 1,200 | 11 | 2,480 | 16 | 117 | { | - | 8 | - |
| Northampton, | 81 | 1,200 | 1 | 960 | 16 | 157 | { | 32 | 7 | - |
| North Attleborough, | 21 | 1,200 | 4 | 282 | 10 | 72 | { | 65 | 25 | 2 |
| North Shore, | 74 | 1,200 | 1 | 2,087 | 16 | 236 | { | 25 | 5 | - |
| Orange, | 15 | 1,200 | 1 | 8 | 32 | 112 | { | 55 | 1 | - |
| Palmer, | 31 | 1,200 | 1 | 310 | 16 | 85 | { | 121 | 1 | - |
| Pittsfield, | 4 | 1,200 | - | 95 | 10 | 350 | { | 50 | 25 | 4 |
| Plymouth, | 96 | 1,200 | 8 | 110 | 20 | 137 | { | 65 | 9 | 7 |
| Quincy, | 18 | 1,200 | 2 | 3,478 | 32 | 186 | { | 32 | - | 6 |
| Salem, | 7 | 1,200 | 8 | 1,200 | 16 | 326 | { | - | 28 | 10 |
| Somerville, | 115 | 2,000 | 13 | 879 | 16 | 239 | { | 32 | 16 | 7 |
| Southbridge, | 9 | 2,000 | 14 | 216 | 16 | 67 | { | 65 | 3 | - |
| South Hadley Falls, | 52 | 1,200 | 1 | 5 | 16 | 28 | { | 16 | - | - |
| Spencer, | 35 | 1,200 | 1 | 26 | 16 | - | { | 25 | - | - |
| | 1 | 1,200 | 1 | 400 | - | - | { | - | - | - |
| | 1 | 1,200 | 1 | - | - | - | { | - | - | - |

| COMPANY. | Number of Commercial Arc Lights. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Arc Lights. | Number of Commercial Incandescent Lights. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Incandescent Lights. | Number of Commercial Incandescent Lights. | Number of Commercial Incandescent Lights off Arc Circuits. | Nominal Candle- Power. | Number of Consumers using only Commer- cial Incandescent Lights off Arc Cir- cuits. | Number of Consumers using both Arc and Incandescent Lights. | Number of Customers using only Power. |
|-------------------------------------|-------------------------------------|---------------------------|---|---|--|---|--|--|---------------------------|---|---|--|
| Stoughton, | 2 | 800 | 2 | - | - | - | - | 1 | 125 | - | - | - |
| Suburban, | 162 65 | 2,000 1,200 | 53 | 5,950 | 16 | 271 | - | 4 | 75 65 50 | 1 | 41 | 38 |
| Taunton, | 122 | 1,200 | 11 | 2,100 | 16 | 98 | 98 | 1 | - | - | 18 | - |
| Union, | 7 | 1,200 | 2 | 42 1,388 | 25 16 | 109 | 109 | 2 | - | - | 58 | - |
| United, | 16 | 1,200 | 20 | 7,163 | 16 | 262 | 262 | 3 | 32 65 125 | - | 39 | 24 |
| Uxbridge and Northbridge, | - | - | - | 3,000 | 16 | 162 | 162 | 10 | - | - | - | - |
| Waltham, | 69 | 1,200 | 7 | 2,863 | 16 | 206 | 206 | 7 | 65 | 2 | 29 | 12 |
| Ware, | 1 | 1,200 | 1 | 976 | 16 | 79 | 79 | - | - | - | 1 | - |
| Webster, | 19 | 1,200 | 6 | 497 | - | 78 | 78 | - | - | 1 | 2 | - |
| Westborough, | 15 | - | 4 | 963 | 16 | 105 | 105 | - | - | - | 1 | - |
| Westfield, | 1 | 1,200 | - | 410 | 16 | 73 | 73 | 1 | 25 | 1 | 2 | - |
| Weymouth, | 1 | 1,200 | - | - | - | 231 | 231 | - | - | - | - | - |
| Whitman, | 28 | 1,200 | 11 | 3 9 50 111 1,200 40 863 5,427 4,392 | 64 32 20 25 16 25 16 16 16 | 68 | 68 | 1 | 32 | 1 | - | - |
| Winchendon, | 14 | 1,200 | 4 | - | - | 65 | 65 | - | - | - | 5 | - |
| Woburn, | 43 | 2,000 | 5 | 5,427 | 16 | 208 | 208 | - | - | - | 26 | 4 |
| Worcester, | 325 | 2,000 | 117 | 4,392 | 16 | 168 | 168 | - | - | - | 13 | 3 |

| COMPANY. | Number of Public Lamps. | Nominal Candle-power. | Number of Hours per Night. | Number of Nights per Month. | PRICE PAID. |
|--------------------------------------|----------------------------|--------------------------|---------------------------------|------------------------------|--------------------------------------|
| Clinton, | { 40 | 1,200 | Dark to daylight, | 25 nights, | { 35 cents per night. |
| Cohasset, | { 158 | 25 | Dark to 1 A.M., | Moon schedule, | { 9 cents per night. |
| Cottage City, | { 286 | 30 | 5 hours, | { Every night during the | { \$20 per year, renewals free. |
| | 22 | 1,600 | | { season of 90 days, | 47 cents per night. |
| Dedham, | { 23 | 1,200 | All night, | { Every dark hour, | { Ten year contract, 19 arcs and 314 |
| | 411 | 25 | Dark to 12.30 A.M., | | incandescents for \$5,000 per |
| Easthampton, | 33 | 1,800 | 5 hours, | 25 nights, | year. Additional lights, arc |
| Edison (Brockton), | 65 | 2,000 | All night, | Every night, | \$70, Incandescent \$16 each, per |
| Fall River, | 518 | 15 | Dark to 1 A.M., | Moon schedule, | year. Arcs burned all night |
| Fitchburg, | 351 | 2,000 | All night, | Every night, | 66½ extra. |
| | 186 | 1,200 | 7½ hours, | Every night, | \$65 per year. |
| Framingham, | 58 | 1,200 | Average 5½ hours, | Average 26 nights, | 47½ cents per night. |
| Franklin (Turner's Falls), | 164 | 25 | Average 5½ hours, | Average 26 nights, | 44 cents per night. |
| | 22 | 2,000 | Sunset to 12.30 A.M., | Every night, | \$83 per year. |
| Gardner, | 48 | 1,200 | Dark to midnight, | Average 24 nights, | 25 cents per night. |
| | 35 | 1,200 | Dark to midnight, | Average 24 nights, | 5.6 cents per night. |
| Gloucester, | 40 | 25 | All night, | Every night, | \$85.70 per year. |
| | 26 | 1,500 | Dark to midnight, | Every night, | \$75 per year. |
| Great Barrington, | 20 | 50 | 6 hours, | 25 nights, | \$125 per year. |
| | 41 | 1,200 | 6 hours, | 25 nights, | \$21 per year. |
| Greenfield, | 3 | 32 | Dark to midnight, | Moon schedule, | 25 cents per night. |
| Haverhill, | 101 | 2,000 | Dark to midnight, | Moon schedule, | 6 cents per night. |
| Holyoke, | 194 | 1,200 | All night, | 27 nights, | \$74.03 per year. |
| Hudson, | 14 | 1,200 | All night, | Every night, | \$25 per year. |
| Hull, | 357 | 25 | Dark to midnight, | Every night, | 45 cents per night. |
| | | | Dark to midnight, | Moon schedule, | 33½ cents per night. |
| | | | | | 25 cents per night. |
| | | | | | \$25 per year. |

| COMPANY. | Number of Public Lamps. | Nominal Candle-power. | Number of Hours per Night. | Number of Nights per Month. | PRICE PAID. |
|---------------------------------|----------------------------|--------------------------|-------------------------------|-----------------------------|---|
| New Bedford, | 143 | 2,000 | All night, | Moon schedule, | 40 cents per night. |
| | 65 | 16 | All night, | 20 nights, | \$1,000 per year for all the lights. |
| | 20 | 16 | All night, | 25 nights, | 7 cents per night; two others main- tained free. |
| Newburyport, | 132 | 1,200 | Average 6 hours, | Every dark night, | \$6 25 per month. |
| Newton, | 108 | 1,200 | All night, | Moon schedule, | \$100 per year. |
| | 786 | 25 | Dark to 12.30 A.M., | Moon schedule, | \$13.50 per year. |
| North Adams, | 97 | 1,200 | All night, | Every night, | 30 cents per night. |
| Northampton, | 123 | 1,200 | Dark to midnight, | 25 nights, | 184 cents per night. |
| North Attleborough, | 64 | 1,200 | Dark to 12.30 A.M., | Moon schedule, | 204 cents per night. |
| | 56 | 1,200 | Dark to 12.30 A.M., | Moon schedule, | \$80 per year. |
| North Shore (Revere), | 229 | 25 | Dark to 12.30 A.M., | Moon schedule, | \$17 per year. |
| Orange, | 31 | 1,200 | Average 6 hours, | Moon schedule, | \$75 per year. |
| Palmer, | 30 | 1,200 | Dark to midnight,* | Moon schedule, | \$75 per year. |
| | 112 | 25 | Dark to midnight,* | Moon schedule, | \$17 per year. |
| | 17 | 1,200 | All night, | 25 nights, | 334 cents per night |
| Pittsfield, | 39 | 1,200 | To 12.30 A.M., | 25 nights, | 22 cents per night. |
| | 241 | 25 | To 12.30 A.M., | 25 nights, | 43 cents per night. |
| | 42 | 25 | All night, | Every night, | 7.4 cents per night. |
| Plymouth, | 19 | 1,200 | Dark to midnight, | 26 nights, | \$80 per year. |
| | 227 | 32 | Dark to midnight, | 26 nights, | \$80 per year. |
| Quincy, | 89 | 1,200 | 6 1/2 hours, | 28 nights, | \$75 per year. |
| | 123 | 25 | 6 1/2 hours, | 28 nights, | \$20 per year. |
| Salem, | 180 | 2,000 | All night, | Every night, | 40 cents per night. |
| | 600 | 25 | All night, | Every night, | 6.9 cents per night. |
| | 280 | 1,200 | All night, | Every night, | \$120 per year. |
| | 222 | 25 | All night, | Every night, | \$25 per year. |
| Somerville, | 484 | 1,200 | Dark to 1 A.M., | 20 nights, | \$4.425 for all lights for eight months. |
| | 213 | 25 | Dark to 1 A.M., | 20 nights, | All lights for \$3,093 per year. |
| Somerville, | 124 | 1,200 | Dark to 1 A.M., | 20 nights, | 30 cents per night. |
| | 128 | 25 | Dark to 1 A.M., | 23 nights, | 6.1-6 cents per night. |
| Southbridge, | 53 | 1,200 | Dark to midnight, | 23 nights, | \$18 per year. |
| | 80 | 25 | Dark to midnight, | 27 nights, | |
| South Hadley Falls, | 160 | 40 | Sunset to midnight, | 27 nights, | |

| | | | | | | | |
|-------------------------------------|-----|-------|------------------------|-----------|--------------------|-----------|---------------------------------|
| Spencer, | 70 | 1,200 | Dark to midnight, | | 23 nights, | | 27.9 cents per night. |
| Stoughton, | 67 | 800 | Average 6 hours, | | Average 23 nights, | | \$50 per year. |
| Taunton, | 84 | 1,200 | Dark to 1 A.M., | | 20 nights, | | 34 cents per night. |
| Union (Franklin), | 39 | 1,200 | Dark to midnight, | | Moon schedule, | | \$75 per year; 1 light free. |
| Union (Franklin), | 42 | 25 | Dark to midnight, | | Moon schedule, | | \$15 per year; 1 light free. |
| Union (Franklin), | 42 | 65 | Dark to midnight, | | Moon schedule, | | Free lights. |
| Union (Franklin), | 42 | 1,200 | All night, | | Every night, | | 22.83 cents per night. |
| United (Springfield), | 739 | 2,000 | Average 6 hours, | | Moon schedule, | | \$70 per year. |
| Uxbridge and Northbridge, | 65 | 25 | Average 5 hours, | | Moon schedule, | | \$20 per year. |
| Walham, | 98 | 1,200 | Dark to 1 A.M., | | Every night, | | 23 cents per night. |
| Ware, | 41 | 1,200 | Until midnight, | | Moon schedule, | | \$72 per year. |
| Webster, | 59 | 1,200 | Until midnight, | | Every night, | | \$82.50 per year. |
| Westborough, | 32 | 1,200 | Until midnight, | | Every dark night, | | \$80 per year. |
| Westborough, | 27 | 32 | Until midnight, | | Every dark night, | | \$25 per year. |
| Westfield, | 59 | 2,000 | 6 1/2 hours, | | Every night, | | 22 1/2 cents per night. |
| Westfield, | 8 | 25 | 6 1/2 hours, | | Every night, | | 5 3/4 cents per night. |
| Weymouth, | 32 | 1,200 | Until 12.30 A.M., | | Average 25 nights, | | \$70 per year. |
| Weymouth, | 465 | 32 | Until 12.30 A.M., | | Average 25 nights, | | \$22 per year. |
| Whitman, | 27 | 1,200 | Until 12.45 A.M., | | Average 20 nights, | | \$80 per year. |
| Whitman, | 3 | 32 | Until 12.45 A.M., | | Average 20 nights, | | \$12.50 per year. |
| Winchendon, | 22 | 1,200 | Dark to midnight, | | 25 nights, | | \$75 per year. |
| Winchendon, | 40 | 25 | Dark to midnight, | | 25 nights, | | \$15 per year. |
| Winchendon, | 22 | 22 | Dark to 12.30 A.M., | | 20 nights, | | All lights, \$279.35 per month. |
| Winchendon, | 116 | 25 | Dark to 12.30 A.M., | | 20 nights, | | All lights, \$300 per month. |
| Winchendon, | 18 | 2,000 | Dark to 12.30 A.M., | | 20 nights, | | All lights, \$625 per month. |
| Winchendon, | 136 | 25 | Dark to 12.30 A.M., | | 20 nights, | | All lights, \$625 per month. |
| Winchendon, | 51 | 1,200 | Dark to 12.30 A.M., | | 20 nights, | | 40 cents per night. |
| Winchendon, | 291 | 25 | Dark to 12.30 A.M., | | Every night, | | \$20 per year. |
| Winchendon, | 362 | 2,000 | All night, | | Every night, | | |
| Winchendon, | 25 | 25 | All night, | | Every night, | | |

1 31 arcs and 8 incandescents every night for three months.

* Saturday nights to 12.30.

The following table shows the price charged by the several electric light companies for commercial lights on June 30, 1893:—

| COMPANY. | Price for Commercial Lights. |
|----------------------|---|
| Abington & Rockland, | One cent per 16 candle lamp hour; 10 per cent. discount if paid before the fifteenth of the month, customers pay for wiring and renewals. |
| Adams, | For 16 c. p. incandescent lights for business places open 6 nights per week until 11 p.m., \$12.00; open 4 nights per week, \$9.00; renewals free; wiring in stores and offices free, in dwellings at cost. |
| Amesbury, | Arc lights, 3 nights per week, each lamp, \$57.00; 4 nights, \$63.00; 5 nights, \$69.00; 6 nights, \$75.00; 7 nights, \$81.00 per year. Incandescent lights, 16 c. p. lamps, 3 nights per week, \$8.00 per year, and \$1.00 per year additional for each additional night per week; 20 c. p. lamps, 3 nights per week, \$9.00 per year, and \$1.00 per year additional for each additional night per week; 32 c. p. lamps, 3 nights per week, \$16.00 per year, and \$2.00 per year additional for each additional night per week. Wiring at owner's expense. All lamps at consumers' expense. |
| Amherst, | Incandescent 16 c. p. lights one cent per hour by meter; dwelling-house wiring at cost; commercial wiring free; renewals at cost. |
| Andover, | Incandescent lights 24 cents per thousand watts; a very few lights by contract. Wiring, stores, free. All other places from \$2.50 to \$5.00 per outlet; renewals on contract lights free; customers pay for metered lights renewals. |
| Athol, | Arc lights, \$75.00 per year. Incandescent 32 c. p. lights, \$15.00 per year. Run only where street lights are used. |
| Beverly, | Arc lights, 50 cents per night. Incandescent lights, 16 c. p.; 7 nights per week, \$1.16 $\frac{2}{3}$ per month; 6 nights per week, \$1.00 each per month; five nights per week, each 92 cents per month; 4 nights per week, 87 $\frac{1}{2}$ cents each per month; 3 nights per week, 82 cents. Meter rates, 25 cents per 1,000 watts. Customers pay for wiring and renewals. |
| Blue Hill (Canton), | Incandescent lights, one cent per ampere hour by meter; \$10.00 per year per light by contract. Wiring at owner's expense; lamp renewals, 70 cents each. |
| Boston, | Arc lights under contracts, 1 lamp for 12 mos., 75 cents; for 6 mos., 80 cents; for 3 mos., 90 cents; 2 lamps for 12 mos., each 85 cents; for 6 mos., each 75 cents; for 3 mos., each 85 cents; 3 or 4 lamps for 12 mos., each 65 cents; for 6 mos., each 70 cents; for 3 mos., each 80 cents; 5 to 7 lamps for 12 mos., each 60 cents; for 6 mos., each 65 cents; for 3 mos., each 75 cents per day; 8 or 9 lamps for 12 mos., each 55 cents; for 6 mos., each 60 cents; for 3 mos., each 70 cents; 10 lamps for 12 mos., each 50 cents; for 6 mos., each 55 cents; for 3 mos., each 65 cents per day. Incandescent lights under contracts, 125 c. p. for 12 mos., each lamp 50 cents per day; 65 c. p. for 12 mos., 30 cents per day; 32 c. p. for 12 mos., 20 cents per day; 16 c. p. 1 cent per hour by meter. Inside incandescent wiring charged to customer at cost; lamps furnished and renewed free, except those broken by customer. |
| Bridgewater, | Incandescent lights, 1 cent per ampere hour or \$10.00 per year for 16 c. p. lamps; wiring \$2.00 per lamp, open wiring; \$2.75 per lamp for concealed work. Lamp renewals free to contract customers; to meter customers 65 cents per lamp. |

| COMPANY. | Price for Commercial Lights. |
|----------------------------------|---|
| Brookline, . . . | Arc lights, \$65.00 to \$100.00 per year according to hours burnt. Incandescent lights, \$1.00 to \$1.50 per mo., 16 c. p. lamps, according to hours burnt, and 1 cent per hour by meter. Lamps free to contract customers; meter customers pay. |
| Cambridge, . . . | Arc lights, \$100.00 per lamp per year. Incandescent lights, 20 c. p., yearly contract, 1 lamp \$10.00; 32 c. p., \$24.00; 65 c. p. \$40.00. One cent per lamp hour by meter. Consumers pay for lamps and renewals. |
| Charlestown, . . . | Arc lights, 50 cents per night. Incandescent lights, 50 cents per night per group of 8, 16 c. p. lamps running an average of about 6 hours per night. Lamp renewals free. |
| Chelsea, . . . | Arc lights, 40 cents per lamp per night until 12 P.M., 25 cents until 6.30 P.M. Incandescent lights, 16 c. p., \$1.25 per mo. for stores. By meter 1½ cents per hour. Renewals 60 cents each. |
| Citizens' (Wakefield), | Incandescent lights, 1 cent per hour, 16 c. p. lamps by meter. \$1.00 per month by contract for 16 c. p. lamps; \$1.75 for 32 c. p. lamps. Wiring, \$2.50 per lamp for neat work; do no concealed work. Renewals, 60 cents for 16 c. p. lamps, 75 cents for 32 c. p. Arc lights, 6 or 7 nights per week, \$108.00 per year; 5 nights, \$96.00; 4 or less nights, \$84.00. |
| Clinton, . . . | Arc lights, 1 light, \$8.33 per mo.; 2 lights, 7.50 each; 3 lights, \$7.00 each; 4 or more lights, \$6.50 each. Incandescent lights, \$1.00 per light per month, meter rates 1½ cents per hour. Wiring at cost; renewals free. |
| Cohasset, . . . | Incandescent lights, contract rates for each customer; customers pay for renewals. |
| Cottage City, . . . | Arc lights, single lights, \$50.00 per season of 90 days. 2 lights, \$45.00 each; 4 or more, \$40.00 each. |
| Dedham, . . . | Arc lights, \$70.00 per year. Incandescent lights on contracts based on \$10.00 per lamp per year until 10 P.M.; by meter, 20 cents per 1,000 watt hours. |
| Edison (Boston), . . . | Incandescent lights, 1 cent per hour, 16 c. p. lamp by meter. Lamp renewals free; inside wiring charged to customer. |
| Edison (Brockton), . . . | Arc lights, 4 nights per week, each lamp \$9.00 per month; 7 nights, \$10.00. Incandescent lights, 1½ cents per 16 c. p. lamp hour by meter. Lamp renewals free. |
| Edison (Fall River), . . . | Incandescent lights, 1 cent per 16 c. p. lamp hour by meter. Inside wiring at net cost; renewals free. |
| Fall River, . . . | Arc lights, 1 to 4 lights, each, \$8.00 per mo. 5 to 8, each, \$7.00, 9, \$60.00, 10, \$65.00, 11, \$70.00, 12 to 15, each, \$6.25, 16 or more, each, \$6.00 per mo. Incandescent lights, 20 cents per 1,000 watt hours by meter. Renewals free. |
| Fitchburg, . . . | Arc lights, 3 nights per week, 1 to 4 lights, \$10.00 each light per mo., 5 to 9 lights, \$9.00 per mo., 10 or more, \$8.00; 4 nights per week, 1 light, \$10.50; 2 to 4, \$10.00 each; 5 to 9, \$9.00; 10 or more, \$8.00; 5 nights, 1 light, \$11.00; 2 to 4, \$10.00; 5 to 9, \$9.00; 10 or more, \$8.00; 6 nights, 1 light, \$12.00; 2 to 4, \$11.00; 5 to 9, \$10.00; 10 or more, \$9.00; 7 nights, 1 light, \$13.00; 2 to 4, \$12.00; 5 to 9, \$11.00; 10 or more, \$10.00. Incandescent lights, by meter, 25 cents per 1,000 watts. Wiring and all lamps paid for. |
| Framingham, . . . | Arc lights, for first light, \$96.00 per year; second light, \$84.00; each additional light, \$72.00 per year. Incandescent lights, by meter, 1 cent per lamp hour; by contract, \$1.25 each per month if 3 lights or less; if more than 3, \$1.00 each; 12 lights for \$10.00 per month. Larger number by contract. Wiring in stores, \$1.50 per lamp, houses at cost. Renewals free. |
| Franklin (Turner's Falls), . . . | Incandescent lights, 4 nights in the week to 9 P.M., \$7.00 per year; 6 nights in the week to 11 P.M., \$10.00; 7 nights, \$11.00. Wiring and renewals free. |

| COMPANY. | Price for Commercial Lights. |
|-------------------------|--|
| Gardner, . . . | Arc lights, for yearly contract, 6 nights per week, \$77.78; 5 nights, \$66.67; 4 nights, \$55.55. Incandescent lights, 25 cents per 1,000 watt hours; by contract, \$0.0122 per lamp hour. Shops, mills and factories, 50 cents per 1,000 watt hours, or by contract, \$0.0225 per lamp hour. Discount of 10 per cent. on all bills if paid on or before the tenth of the month. Lamp renewals free to meter customers, at cost to others. Wiring at customer's expense. |
| Gloucester, . . . | Arc lights running until midnight, 1 lamp, \$9.00 per mo.; 2 lamps, \$8.50 each; more than 2, \$8.00 per month each. Incandescent lights, 5 nights per week to 7 P.M., and 1 night to midnight, 16 c. p., 75 cents per lamp per mo., 65 c. p., \$3.00 per mo., 5 nights to 9 P.M., and 1 night to midnight, 16 c. p., \$1.00, 65 c. p., \$3.50; 7 nights to midnight, 16 c. p., \$1.25, 65 c. p., \$4.00 per lamp per mo. Rates by meter, 20 cents per 1,000 watt hours. Wiring in stores for contract lights free; others at cost; renewals free. |
| Great Barrington, . . . | Arc lights, 25 cents per night. Incandescent lights, 16 c. p., \$10.00 per lamp per year by contract; by meter, 1 cent per ampere hour. Renewals free. Wiring at customer's expense. |
| Greenfield, . . . | Arc lights, averaging 15 hours per week, \$65.00 per lamp per year. Incandescent lights, metered lights at 1 cent per 16 c. p. lamp hour; contract rates, \$6.00 to \$20.00 per lamp per year, based on 1 cent per hour and estimated hours of consumption. Lamp renewals free. Wiring at cost. |
| Haverhill, . . . | Arc lights, 50 cents per night. Incandescent lights, \$1.25 per mo. Wiring and renewals free. |
| Holyoke, . . . | Arc lights, 7 nights per week, until 10.30 P.M., \$100.00 each per year; 4 nights until 10.30 P.M., other nights to 6.30 P.M., \$75.00; 3 nights until 10.30 P.M., other nights to 6.30, \$70.00. Incandescent lights by meter or contract, 1½ cents per hour for 16 c. p. lamp. Arc wiring free; incandescent renewals at cost. |
| Hudson, . . . | Arc lights, \$6.25 per month to 10 P.M., \$8.33 per month to 12 P.M. Incandescent lights, by contract, 50 cents to \$1.00 per mo.; by meter, 1 cent per hour. Customer pays for wiring and renewals. |
| Hyde Park, . . . | Arc lights, \$70.00 per year. Incandescent lights, \$10.00 each per year until 10 P.M.; 20 cents per 1,000 watt hours by meter. |
| Hull, . . . | Arc lights, \$16.50 per mo. Incandescent lights, 16 c. p., from 50 cents to \$1.00 per mo., according to location; by meter, from 1½ to 2 cents per hour. Special winter rate, dark to midnight only, 40 cents per light per mo. Wiring and renewals at cost. |
| Lawrence, . . . | Arc lights, 2 nights per week, May to September, \$5.50, balance of the year, \$6.00 per mo.; 3 nights per week, \$6.00; 4 nights, \$7.50; 6 nights, \$8.00; 7 nights, \$9.00. Incandescent lights, 1 cent per 16 c. p. lamp hour; 10 per cent. off when bill amounts to \$5.00 per mo. and 5 per cent. off when bills are less than \$5.00, with a minimum charge of \$1.00 per mo. to new customers. Arc wiring free. Incandescent at customer's expense. Renewals free. |
| Lee, . . . | Incandescent lights, \$9.00 per year by contract. Meter rates, 20 cents per 1,000 watts. Wiring at cost; renewals free. |
| Leicester, . . . | Incandescent lights, until 10 P.M., \$10.00 per lamp per year. Meter rates, 20 cents per 1,000 watt hours. Wiring at cost. Renewals paid by customer. |
| Leominster, . . . | Arc lights, \$75.00 per year. Incandescent lights until 10 o'clock, \$10.00 per year; until 12 o'clock, \$12.00; all night, \$18.00; by meter, 20 cents per 1,000 watt hours. Renewals at customer's expense. Wiring at cost. |

| COMPANY. | Price for Commercial Lights. |
|----------------------|--|
| Lowell, . . . | Arc lights, \$10.00 per lamp per month, burned every night; 50 cents per lamp per night, burned 3 or 4 nights per week; \$8.44 per lamp per month on yearly contracts. Incandescent lights, \$1.00 per lamp per mo. for contract lights, 12 cents per 1,000 watts by meter. Renewals free. |
| Lynn, . . . | Arc lights, one light 7 nights per week to 11 P.M., \$10.00 per mo.; 6 nights, \$9.00; 2 nights to 11 P.M. and 4 nights to 6.30 P.M., \$7.00 per mo. Incandescent lamps, \$1.00 to \$1.25 per lamp per mo.; by meter, 18 cents per 1,000 watt hours. Renewals free, on contract lights only. |
| Malden, . . . | Arc lights, \$10.00 per mo. for single light, \$8.83 per lamp for 2 lights. Special rates for larger numbers according to hours named. Incandescent lights, \$1.00 per mo. for 16 c. p. lamps, for contract lights; 1½ cents per 16 c. p. lamp hour by meter. Lamps and renewals for contract lights free. For metered lights no free renewals. |
| Marlborough, . . . | Arc lights, every night, 1 light, \$8.50 per mo.; 2 or more lights, \$7.50 each; 3 nights per week, 1 light, \$7.50 per mo.; 2 or more lights, \$5.00 each. Incandescent lights, 16 c. p., stores closing 3 nights a week at 6 P.M., \$10.00 per year; 6 nights per week burning until 9 P.M., \$12.00; until 11 P.M., \$13.50; until 12 P.M., \$15.00. Meter rates, 25 cents per 1,000 watt hours. Wiring at cost and renewals free. |
| Middleborough, . . . | Incandescent lights, \$10.00 per lamp per year. Wiring and renewals at cost. |
| Milford, . . . | Arc lights, outside, every night, April to October, \$6.67 per lamp per mo.; October to April, \$10.00. Inside use, April to October, 1 lamp 6 or 7 nights per week, \$8.00 per mo.; 2 lamps 6 or 7 nights per week, \$14.50; 3 lamps 6 or 7 nights per week, \$20.50; 4 lamps 6 or 7 nights per week, \$25.50. For 4 nights per week, 1 lamp, \$6.00; 2 lamps, \$10.75; 3 lamps, \$16.00; 4 lamps, \$20.00. For 3 nights per week, 1 lamp, \$5.50; 2 lamps, \$10.00; 3 lamps, \$15.00; 4 lamps, \$18.00. From October to April, 6 or 7 nights per week, 1 lamp, \$12.00; 2 lamps, \$21.50; 3 lamps, \$30.50; 4 lamps, \$38.50. 4 nights per week, 1 lamp, \$9.75; 2 lamps, \$17.00; 3 lamps, \$24.00; 4 lamps, \$31.00. 3 nights per week, 1 lamp, \$9.50; 2 lamps, \$15.00; 3 lamps, \$22.50; 4 lamps, \$28.00. Transient lights, 75 cents per light per night. Incandescent lights by meter, 1½ cents per lamp hour. On contract, 16 c. p. lamps burning every night until 11 P.M., \$1.25, until 9 P.M., \$1.00. If burnt 4 evenings per week, \$1.00 per mo.; 3 evenings, 90 cents if as many as 3 lights are used. For 5 or more lights, wiring and renewals free; other wiring and renewals paid. For 10 or 15 lights, 1 consumer, 10 per cent. discount; more than 15, 15 per cent. discount. Factory lighting, from 4 to 6 P.M., 65 cents per lamp per month. |
| Millbury, . . . | Incandescent lights until 10 P.M., \$10.00 per year. Wiring at cost. Renewals at customer's expense. Meter rates, 20 cents per 1,000 watt hours. Arc lights, \$80.00 per year. |
| Milton, . . . | Incandescent lights, 1 cent per hour by meter for each 16 c. p. lamp. Renewals at customer's expense. |
| Nantucket, . . . | Arc lights, \$10.00 each per month. Incandescent, 16 c. p., \$10.00 each per year. Wiring at cost. Renewals free. |
| Natick, . . . | Arc lights, 1st light, \$8.00; 2d light, \$7.00; 3d light, \$6.00 per month. Incandescent lights, first three, \$1.20 per mo. each; second three, \$1.00; third three, 80 cents; fourth three, 60 cents; additional lamps, 50 cents each. Wiring at cost; renewals free. |

| COMPANY. | Price for Commercial Lights. |
|-----------------------------|--|
| New Bedford, . . . | Arc lights, about 5 cents per hour, and rent of lamp at \$10.00 per year. Incandescent lights, 1 cent per 16 c. p. lamp hour. Discounts, bills \$8.00 per month and under, 5 per cent.; \$8.00 to \$16.00, 10 per cent.; \$16.00 to \$20.00, 15 per cent.; over \$20.00, 25 per cent. for prompt payment. Wiring by contract. Lamps and renewals free. |
| Newburyport, . . . | Arc lights, 4 to 7 nights per week, one light, \$10.00 per mo.; 2 lights, \$9.00 each; 3 or more, \$8.00 each; 1 to 3 nights per week, 1 light, \$7.00 per mo.; 2 lights, \$6.25 each; 3 or more, \$5.67 each. Series incandescent lights, 65 c. p., 4 to 7 nights per week, 1 light, \$5.00 per mo.; 2 lights, \$4.75 each; 3 lights, \$4.50 each; 4 lights, \$4.25 each; 5 or more, \$4.00 each. 1 to 3 nights per week, 1 light, \$3.50 per mo.; 2 lights, \$3.37½ each; 3 lights, \$3.25 each; 4 lights, \$3.12½ each; 5 lights, \$3.00 each; 6 or more, \$2.83½ each. Direct current incandescent, 20 c. p. lamp, 4 to 7 nights per week, \$1.25 each per mo.; 1 to 3 nights per week, \$1.00; 32 c. p. lamp, 4 to 7 nights, \$2.00 each per mo.; 1 to 3 nights per week, \$1.60. 8 per cent. discount from these prices for incandescent lights, and a further discount of 5 per cent. on all bills paid before the 10th of the month. Renewals at consumers' expense. |
| Newton, . . . | Incandescent lights, by contract, \$1.00 per mo.; by meter, 25 cents per 1,000 watt hours. Discount of 20 per cent. for prompt payment. Renewals at customers' expense; 70 cents for 16 c. p., \$1.00 for 32 c. p. lamp. |
| North Adams, . . . | Arc lights, single lamp, 40 cents per night; 2 lamps, 30 cents each; 3 or more at 25 cents each. Incandescent lights, \$12.00 per year for 6 nights per week; \$10.00 per year for 4 nights per week; \$9.00 per year for 3 nights per week. Meter rates, 20 cents per 1,000 watt hours. Renewals free. |
| Northampton, . . . | Arc lights, \$75.00 per year every night till 10 P.M.; \$100.00 till midnight; \$60.00 for one night a week till 10 P.M. Incandescent lamps, 16 c. p. used 2 nights per week until 10 P.M. and 4 nights until 6 P.M., \$8.00 each per year; 6 nights until 9 P.M., \$10.00; until 10 P.M., \$12.00; until 11 P.M., \$14.00; until midnight, \$16.00; 7 nights until 10 P.M., \$13.00; until 11 P.M., \$15.00; until midnight, \$17.00; all night, \$20.00. 10 c. p. used 2 nights per week until 10 P.M. and 4 nights until 6 P.M., \$7.00 each per year; 6 nights until 9 P.M., \$8.00; until 10.00 P.M., \$9.00; until 11 P.M., \$10.00; until midnight, \$12.00; 7 nights until 10 P.M., \$10.00; until 11 P.M., \$11.00; until midnight, \$13.00; all night, \$15.00. 20 c. p. used 2 nights per week until 10 P.M. and 4 nights until 6 P.M., \$10.00 each per year; 6 nights until 9 P.M., \$12.00; until 10 P.M., \$15.00; until 11 P.M., \$18.00; until midnight, \$20.00; 7 nights until 10 P.M., \$16.00; until 11 P.M., \$20.00; until midnight, \$21.00; all night, \$25.00. 25 per cent. added to these rates when less than 3 lights are used. By meter, 1 cent a lamp hour. Wiring and lamps on meter at consumer's cost; other lamp renewals free. |
| North Attleborough, . . . | Arc lights, \$8.00 per lamp per mo. Shop lights, 8 cents per inch of carbon burned. Incandescent lights by meter 1½ cents per ampere hour. Renewals and wiring at cost. |
| North Shore (Revere), . . . | Arc lights, \$80.00 per year. Summer rates, 55 cents per night per light. Incandescent lights: by contract, \$10.00 per year until 10 P.M.; by meter, 20 cents yearly and 30 cents to summer customers per 1,000 watt hours. Renewals, 70 cents each, with rebate of 5 cents for old lamps. Wiring paid by customers. |

| COMPANY. | Price for Commercial Lights. |
|---------------------------|--|
| Orange, . . . | Incandescent lights, 17 to 20 cents per thousand watt hours by meter and 70 cents to \$1.00 per lamp per month by contract, according to number of hours used per week and number of lamps. Wiring at cost. A charge for renewals. |
| Palmer, . . . | Incandescent lights until 9 P.M., \$9.00 per year; \$10.00 per year till 10 P.M.; until midnight, \$12.00 per year. Store wiring free; house wiring at cost. Renewals, 70 cents each. |
| Pittsfield, . . . | Arc lights, until 6 P.M. 3 nights per week, and until 9 P.M. 3 nights, 1 lamp, \$84.00 per year, 2 or more lamps, \$72.00 each; same service as above from April 1st to September 1st, 1 lamp, \$25.00, 2 lamps, \$24.00 each; from September 1st to April 1st, 1 lamp, \$65.00, 2 lamps, \$60.00 each. Until 9 P.M. 6 nights a week, 1 lamp, \$120.00 per year; 2 lamps, \$108.00 each; same service from April 1st to September 1st, 1 lamp, \$40.00; 2 or more lamps, \$36.00 each; September 1st to April 1st, 1 lamp, \$84.00; 2 lamps, \$76.00 each. Incandescent lights, by meter, 250 ampere hours or less, 1 2-10 cents per hour; 250 to 500, 1 1-10 cents; 500 to 1,500, 1 cent; 1,500 to 2,500, 9-10 cents; 2,500 to 3,500 8-10 cents; 3,500 or more, 7-10 cents. Wiring and renewals charged to customers. |
| Plymouth, . . . | Arc lights, 30 cents per lamp carbon. Incandescent lights, 4 nights per week, 80 cents per lamp per month; 6 nights per week, 90 cents per month; these rates for 16 c. p. lamps. Meter rates, 20 cents per 1,000 watt hours for residences and stores; 30 cents per 1,000 watt hours in other cases. Wiring and renewals, 60 cents each. |
| Quincy, . . . | Incandescent lights, \$1.00 per mo., 16 c. p. lamp; 75 cents for 10 c. p.; meter rates, 1½ cents per 16 c. p. lamp hour. Renewals for stores having contract rates furnished by company; all others by consumers. Arc lights, \$7.50 per month, moon schedule. |
| Salem, . . . | Arc lights, every evening except Sunday, \$12.00 per month; incandescent lights, 16 c. p., one cent per hour by meter. Contract lights, 16 c. p. lamps, \$1.00 per lamp per month; without renewals, \$1.25 per month, renewals free. Renewals, 60 cents each. Wiring by special contract. |
| Somerville, . . . | Arc lights, \$125.00 to \$80.00 per year. Incandescent lights, meter rates, 20 cents per 1,000 watt hours. Consumers pay for renewals. |
| Squithbridge, . . . | Arc lights, single lamp, \$75.00 per year 7 nights per week, \$60.00 per year 4 nights per week; if three to five lights taken, \$50.00 each. Incandescent lights, \$10.00 each per year for 5 lamps or less; for more than 5 lights, 10 per cent. less. Renewals free. |
| South Hadley Falls, . . . | Incandescent lights, 6 nights per week till 6.30 P.M., \$6.00 per year; till 6.30 P.M. ordinarily and till 10 P.M. 2 nights per week, \$7.20; till 6.30 P.M. ordinarily and till 10 P.M. 3 nights per week, \$7.80; till 6.30 P.M. ordinarily and till 10 P.M. four nights per week, \$8.40; till 9 P.M. 6 nights per week, \$8.40; till 10 P.M. 6 nights per week, \$10.00; till 11 P.M. 6 nights, \$11.00. Prices are for 16 c. p. lamps. Discount of 5 per cent. on bills paid within five days. Meter rates, 20 cents per 1,000 watt hours. Discount of 6 per cent. if paid within 15 days from date of bill. Wiring and lamp renewals at cost. |
| Spencer, . . . | Arc lights, 27.9 cents per night. |
| Stoughton, . . . | Arc lights, \$60.00 per year. |
| Suburban (Boston), . . . | Arc lights for all day lights, 1,200 c. p., 50 cents per day; for lights dark to midnight, 2,000 c. p., single light, 45 cents per night; 2 to 9 lights, 40 cents each; 10 lights or more, 35 cents each. Incandescent lights, 20 cents per 1,000 watt hours. Renewals free. |

| COMPANY. | Price for Commercial Lights. |
|--------------------------------------|--|
| Taunton, . . . | <p>Arc lights, \$7.00 per month. Incandescent lights, \$1.00 per month.</p> <p>Arc lights, single lamp, 4 nights per week till 10 P.M., \$60.00 per year; till 12 P.M., \$75.00; every night till 10 P.M., \$75.00 per year; till 12 P.M., \$90.00. Incandescent, 16 c. p. lights, every night till 10 P.M., \$10.00 per lamp per year; till 12 P.M., \$12.00; till daylight, \$18.00; 20 c. p. till 10 P.M., \$12.00 per year; till 12 P.M., \$15.00; till daylight, \$21.00. Above 20 c. p., special rates. By meter, 20 cents per 1,000 watt hours. Wiring and renewals at consumer's expense.</p> |
| Union (Franklin), . . | <p>Arc lights, 40 cents per lamp per night. Incandescent lights, 1½ cents per ampere hour. Monthly discounts on 500 ampere hours, 20 per cent.; on 1,000, 30 per cent.; on 2,000, 33½ per cent.; on 4,000, 40 per cent. Renewals free when monthly bills average 50 cents per lamp installed.</p> |
| United (Springfield), . | <p>Incandescent lights, 16 c. p. lamps, 1 cent per hour by meter; by contract, \$10.00 per year. Wiring, \$2.00 per light open, \$3.00 concealed; renewals free.</p> |
| Uxbridge and North- bridge, . . . | <p>Arc lights, 6 or 7 nights per week till 12 P.M., 1 light, \$12.50 per mo.; 2 lights, \$11.87½; 3 lights, \$11.25; 4 lights, \$10.62½; 5 lights, \$10.00; 4 or 5 nights per week, 1 light, \$10.00; 2 lights, \$9.50; 3 lights, \$9.00; 4 lights, \$8.50; 5 lights, \$8.00 each. Discount 20 per cent. from above prices if paid on or before the 15th of the month.</p> |
| Waltham, . . . | <p>Incandescent lights, 16 c. p., 6 or 7 nights per week, \$1.35 per light per mo.; 5 nights per week, \$1.30 each; 4 nights per week, \$1.25 each. Discount 35 cents per light if paid on or before the 15th of the month. All installations of 5 lights or more by meter only at 1½ cents per 16 c. p. lamp hour. Discount of 20 per cent. from this rate if paid before the 15th of the month. All night contract lights, \$2.00 per light per month, with 25 per cent. discount as above. Lamp renewals at expense of consumer.</p> |
| Ware, . . . | <p>Arc lights, \$6.00 per mo. Incandescent lights, 6 nights per week until 10 P.M., \$1.00 per mo.; until 9 P.M., 83 cents per mo.; 3 nights per week until 10 P.M., 67 cents per mo.; by meter, 20 cents per 1,000 watt hours. Wiring under cost; renewals at one-half cost.</p> |
| Webster, . . . | <p>Arc lights, single light, \$80.00 per year; 2 lamps, \$72.00; 3 lamps, \$68.00; 5 or more, \$60.00 each per year. Incandescent lights, 1 light until 12 P.M., \$10.00 per year; 5 lights, 5 per cent. off; 10 lights or more, 10 per cent. off. By meter, 25 cents per 1,000 watt hours. Wiring stores, free; houses, at cost; renewals free.</p> |
| Westborough, . . . | <p>Arc lights, \$80.00 per year. Incandescent lights, by meter, 20 cents per 1,000 watt hours. Wiring at cost; renewals 75 cents each.</p> |
| Westfield, . . . | <p>Arc lights, \$100.00 per year, payable monthly. A discount of 10 per cent. is made for each week-day night on which the lamp is not burned after 6 P.M. Incandescent lights, for 1 16 c. p. lamp every night until 11 P.M., \$1.25 per mo.; every night except Sunday until 11 P.M., \$1.15; 5 nights until 9 P.M., 1 night until 11 P.M., \$1.00; 4 nights until 8 P.M., 2 nights until 11 P.M., 85 cents; 3 nights until 6 P.M., 2 nights until 9 P.M., 1 night until 11 P.M., 70 cents per mo.; 10 c. p. lamps, 25 per cent. less than above rates; 20 c. p. lamps, 20 per cent. more than above rates. Exposed wiring free; lamps and renewals at consumers' expense.</p> |
| Weymouth, . . . | <p>Incandescent lights, 16 c. p. lamps, 7 nights per week, \$10.00 per year; 6 nights, \$9.50; 5 nights, \$9.00; 4 nights, \$8.50. Wiring at cost; renewals, 65 cents each.</p> |

| COMPANY. | Price for Commercial Lights. |
|-------------------|--|
| Whitman, . . . | Arc lights, 4 nights per week until 10 P.M., \$60.00 per year; until midnight, \$75.00; 7 nights per week until 10 P.M., \$75.00; until midnight, \$90.00. Incandescent lights, 16 c. p., until 10 P.M., 90 cents per lamp per mo.; until midnight, \$1.00. Renewals at customers' expense. |
| Winchendon, . . . | Arc lights, 4 nights per week until 10 P.M., \$60.00 per year; until midnight, \$75.00; 6 nights per week until 10 P.M., \$75.00; until midnight, \$90.00. By meter for residences, 20 cents per 1,000 watt hours; in other cases 30 cents per 1,000 watt hours. Meter rental, 25 light meter, \$2.00 per year; 50 light, \$2.50; 100 light, \$4.00. Wiring at cost. Lamp renewals, 65 cents each. |
| Woburn, . . . | Arc lights, 7 nights per week, \$9.00 per mo.; 6 nights, \$8.00; 5 nights, \$7.00; 4 nights or less, \$6.00. Incandescent lights, 6 or 7 nights per week, \$12.00 per year; 5 nights, \$11.00; 4 nights or less, \$10.00. Renewals at cost; wiring at from \$1.50 to \$3.25 per outlet. |
| Worcester, . . . | Arc lights until 9 P.M., 40 cents per night; until 11 P.M., 50 cents; all night, 60 cents. Day lights, 65 cents per day. Incandescent lights, until 9 P.M., \$1.00 per lamp per mo.; until 10.30 P.M., \$1.50 per mo.; until 12 P.M., \$1.75 per mo.; all night, \$2.00 per mo. Renewals free to stores; others at cost. Consumers pay for wiring. |

CASES PENDING BEFORE THE BOARD JAN. 3, 1894.

In all the following cases the parties have been notified that by agreement, or at the request of any party, each case will be set down for a hearing by the Board.

CLASS A.

Including all cases pending more than one year, upon which no action has been taken or requested by any party thereto.

These cases will be considered as suspended, and will not be hereafter reported unless some party interested shall make a request for a hearing or some other final disposition of the case.

Appeal of the Braintree Electric Light Company from the decision of the selectmen of Braintree, granting permission to A. S. Morrison and others to run wires over certain streets in Braintree.

Appeals of the Randolph and Holbrook Electric Company, and of Edward H. Galligan and others, from the decision of the selectmen of Randolph, granting permission to the Randolph and Holbrook Light and Power Company to erect poles and wires in the streets of Randolph.

Appeal of the Bristol County Electric Company from the decision of the aldermen of Taunton, refusing to grant permission to said company to erect poles and wires in the streets of Taunton.

Appeals of the Boston Electric Light Company and the Edison Electric Illuminating Company from the decision of the aldermen of Boston, granting permission to certain parties to run wires over Summer Street.

Petition of the Natick Gas Light Company for authority to supply electric light.

Appeal of the Framingham Gas, Fuel and Power Company from the decision of the selectmen of Framingham, granting permission to the Framingham and Ashland Gas Light Company to lay pipes in the streets.

Appeals of the Edison Electric Illuminating Company, and Boston Electric Light Company, from decision of aldermen of the city of Boston, granting to D. Webster King permission to run electric wires over certain streets in Boston.

Appeal of the Westborough Gas and Electric Company from the decision of the selectmen of Westborough, granting to Henry S. Jackson and others permission to lay gas mains and pipes in the streets of Westborough.

Appeals of the Boston Electric Light Company, and Edison Electric Illuminating Company, from the decision of the aldermen of Boston, granting to the Suburban Light and Power Company permission to maintain electric wires in the streets of Boston.

Petition of consumers of Citizens' Gas Light Company of Reading, South Reading and Stoneham for improvement in quality and reduction in price of gas supplied in Reading.

Petition of consumers of the Jamaica Plain Gas Light Company for improvement in quality and reduction in price of gas.

CLASS B.

Including recent cases in which no action has been requested by either party.

Petition of consumers of the Haverhill Gas Light Company, for reduction in price of gas.

Petition of mayor of Worcester for reduction in price of gas supplied by Worcester Gas Light Company.

Petition of mayor of Cambridge for reduction of price of gas supplied by Cambridge Gas Light Company.

Appeal of Chelsea Gas Light Company from the decision of the aldermen of Chelsea, granting permission to the Champlin-Babson Electric Company to lay underground electric light wires in certain streets in the city of Chelsea.

Appeal of Cottage City Gas and Electric Company from the decision of the selectmen of Cottage City in granting permission to H. S. Kemp and others to construct, maintain and operate an electric plant in said town of Cottage City.

CLASS C.

Including cases heard and decisions not rendered up to Jan. 3, 1894.

Petition of selectmen and consumers for reduction in price of gas supplied by the Arlington Gas Light Company.

Petition of mayor of Boston for reduction in price of gas supplied by the Charlestown Gas and Electric Company.

Petition of customers of Malden Electric Company for improvement in quality and reduction in price of electric light.

Petition of Edison Electric Illuminating Company of Boston for increase of capital stock.

JOHN T. WHEELWRIGHT,
FORREST E. BARKER,
MORRIS SCHAFF.

Jan. 3, 1894.

APPENDICES.

APPENDIX A.

BALANCE SHEETS, MANUFACTURING AND PROFIT AND LOSS ACCOUNTS, TO JUNE 30, 1893.

[From the returns made as corrected by the Board.]

ABINGTON AND ROCKLAND. ELECTRIC LIGHT AND POWER COMPANY OF.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$21,976 58 |
| Steam plant, | 27,448 39 |
| Electric plant, | 26,180 26 |
| Lines, meters, lamps and globes, | 27,741 38 |
| Due for electric light and power, | 1,624 03 |
| Fuel on hand, | 229 56 |
| Carbons on hand, | 45 02 |
| Oil and waste on hand, | 66 60 |
| Other electric materials on hand, | 342 23 |
| Horses, wagons, etc., | 714 62 |
| Sundry accounts due the company, | 422 44 |
| Office furniture, | 290 89 |
| Cash on hand, | 2,141 43 |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$109,223 32 |
|--|--------------|

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$41,200 00 |
| Notes payable, | 55,500 00 |
| Unpaid bills, | 9,989 11 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$106,689 11 |
| Profit and loss balance (if surplus), | 2,534 21 |

\$109,223 32

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|---|-------------|-------------|
| Operating expenses, | \$10,185 05 | |
| Income from sale of electric light and power, | | \$17,843 90 |
| Balance to profit and loss, | 7,658 86 | |
| | \$17,843 91 | \$17,843 91 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$2,572 36 | |
| Balance of electric manufacturing account, | | \$7,658 86 |
| Interest received, | | 17 31 |
| Dividends declared, | 1,873 50 | |
| Interest paid, | 696 10 | |
| Balance June 30, 1893, | 2,534 21 | |
| | <hr/> | <hr/> |
| | \$7,676 17 | \$7,676 17 |

ADAMS ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$3,785 48 |
| Steam plant, | 11,815 31 |
| Electric plant, | 6,819 96 |
| Lines, meters, lamps and globes, | 9,541 90 |
| Incandescent installation, | 1,360 73 |
| Due for electric light and power, | 2,081 98 |
| Fuel on hand, | 160 00 |
| Carbons on hand, | 45 50 |
| Oil and waste on hand, | 45 20 |
| Incandescent lamps on hand, | 175 90 |
| Globes on hand, | 4 50 |
| Other electric materials on hand, | 340 15 |
| Cash on hand, | 78 54 |
| | <hr/> |
| Total assets, as per books of the company, | \$36,255 15 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$8,500 00 |
| Notes payable, | 9,050 00 |
| Unpaid bills, | 16,919 75 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$34,469 75 |
| Profit and loss balance (if surplus), | 1,785 40 |
| | <hr/> |
| | \$36,255 15 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$8,513 01 | |
| Income from sale of electric light and power, | | \$10,789 73 |
| Balance to profit and loss, | 2,276 72 | |
| | <hr/> | <hr/> |
| | \$10,789 73 | \$10,789 73 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$0 97 | |
| Balance of electric manufacturing account, | | \$2,276 72 |
| Interest paid, | 490 35 | |
| Balance June 30, 1893, | 1,785 40 | |
| | <hr/> | <hr/> |
| | \$2,276 72 | \$2,276 72 |

ADAMS GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate, | \$21,326 01 |
| Machinery and manufacturing appliances, | 6,777 05 |
| Motors, | 1,350 74 |
| Due for gas, | 199 61 |
| Gas coal on hand, | 50 00 |
| Coke on hand, | 10 00 |
| Tar on hand, | 210 00 |
| Enrichers on hand, | 18 00 |
| Gas fixtures on hand, lamps, | 478 82 |
| Sundry accounts due the company, | 6,332 02 |
| Office furniture, | 409 20 |
| Cash on hand, | 22 65 |
| Total assets, as per books of the company, | \$37,184 10 |

LIABILITIES.

| | |
|--|--------------------|
| Capital stock, | \$17,300 00 |
| Unpaid bills, | 19 02 |
| Total liabilities, as per books of the company, | \$17,319 02 |
| Profit and loss balance (if surplus), | 19,865 08 |
| | \$37,184 10 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$7,479 16 | |
| Income from sale of gas, | | \$10,856 44 |
| residuals, | | 735 09 |
| Balance to profit and loss, | 4,110 37 | |
| | \$11,589 53 | \$11,589 53 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$19,280 58 |
| Balance of gas manufacturing account, | | 4,110 37 |
| Rents, | | 72 00 |
| Dividends declared, | \$3,597 87 | |
| Balance June 30, 1893, | 19,865 08 | |
| | \$23,462 95 | \$23,462 95 |

AMESBURY ELECTRIC LIGHT, HEAT AND POWER COMPANY.

[Formerly Electric Light and Patent Flooring Company of Amesbury]

ASSETS.

| | |
|---|-------------|
| Real estate, | \$11,000 00 |
| Steam plant, | 14,674 56 |
| Electric plant, | 20,813 81 |
| Lines, meters, lamps and globes, | 8,428 50 |
| Patent rights, | 2,000 00 |
| Due for electric light and power, | 3,095 84 |
| Fuel on hand, | 669 20 |
| Carbons on hand, | 103 00 |

| | |
|--|-----------|
| Oil and waste on hand, | \$69 26 |
| Globes on hand, | 14 50 |
| Other electric materials on hand, | 93 40 |
| Unexpired insurance, | 200 00 |
| Office furniture, | 100 00 |
| Electric fixtures on hand, | 266 40 |
| Sundry accounts due the company, | 68 57 |
| Cash on hand, | 2 49 |
| Notes receivable, | 558 82 |
| Investments (other property, real and personal), | 46,624 85 |

Total assets, as per books of the company, \$108,783 20

LIABILITIES.

| | |
|-----------------------------|-------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 53,000 00 |
| Unpaid bills, | 1,250 95 |
| Unpaid dividends, | 625 00 |

Total liabilities, as per books of the company, \$104,875 95
 Profit and loss balance (if surplus), 3,907 25

\$108,783 20

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$12,940 45 | |
| Income from sale of electric light and power, | | \$20,395 53 |
| Balance to profit and loss, | 7,455 08 | |
| | \$20,395 53 | \$20,395 53 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$2,026 31 |
| Balance of electric manufacturing account, | | 7,455 08 |
| Mill income, | | 5,924 88 |
| Other items of income, | | 207 18 |
| Dividends declared, | \$2,023 00 | |
| Interest paid, | 1,624 00 | |
| Depreciation, | 3,000 00 | |
| Mill expense, | 4,873 71 | |
| Other items, | 185 49 | |
| Balance June 30, 1893, | 3,907 25 | |
| | \$15,613 45 | \$15,613 45 |

AMESBURY AND SALISBURY GAS COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$4,875 98 |
| Machinery and manufacturing appliances, | 40,255 50 |
| Street mains, | 16,595 72 |
| Meters, | 1,663 31 |
| Due for gas, | 635 91 |
| Gas coal on hand, | 1,105 80 |
| Enrichers on hand, | 150 00 |
| Purifying materials on hand, | 15 00 |
| Stoves on hand, | 10 20 |

| | |
|---------------------------------|----------|
| Gas fixtures on hand, | \$36 18 |
| Office furniture, | 80 00 |
| Cash on hand, | 2,847 67 |

Total assets, as per books of the company, \$69,271 27

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$60,000 00 |
|--------------------------|-------------|

Total liabilities, as per books of the company, \$60,000 00

| | |
|---|----------|
| Profit and loss balance (if surplus), | 9,271 27 |
|---|----------|

\$69,271 27

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$5,502 78 | |
| Income from sale of gas, | | \$9,360 94 |
| other sources, gas, | | 196 92 |
| Balance to profit and loss, | 4,055 08 | |
| | \$9,557 86 | \$9,557 86 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$7,916 19 |
| Balance of gas manufacturing account, | | 4,056 08 |
| Dividends declared, | \$2,700 00 | |
| Balance June 30, 1893, | 9,271 27 | |
| | \$11,971 27 | \$11,971 27 |

AMHERST GAS COMPANY.

ASSETS.

| | |
|---|-----------|
| Real estate (gas), | \$635 85 |
| Machinery and manufacturing appliances (gas), | 7,981 22 |
| Street mains (gas), | 6,710 87 |
| Meters (gas), | 1,492 01 |
| Due for gas, | 698 47 |
| Coke on hand, | 30 00 |
| Naphtha on hand, | 135 14 |
| Other gas materials on hand, | 91 20 |
| Real estate (electric), | 1,298 77 |
| Steam plant (electric), | 33,525 42 |
| Electric plant, | |
| Lines, meters, lamps and globes (electric), | |
| Due for electric light and power, | 790 90 |
| Fuel on hand (electric), | 71 06 |
| Oil and waste on hand, | 53 63 |
| Incandescent lamps on hand, | 151 05 |
| Other electric materials on hand, | 880 29 |
| Tools on hand, | 43 50 |
| Sundry accounts due the company, | 559 42 |
| Office furniture, | 55 15 |
| Cash on hand, | 289 37 |
| Unexpired insurance, | 95 25 |
| Investments, | 1,011 25 |

Total assets, as per books of the company, \$56,599 82

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$25,000 00 |
| Bonds issued, | 18,500 00 |
| Unpaid bills, | 978 60 |
| Interest due but not paid, | 462 50 |
| Total liabilities, as per books of the company, | \$44,941 00 |
| Profit and loss balance (if surplus), | 11,658 82 |
| | <u>\$56,599 82</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Operating expenses, { gas, | \$2,525 14 | |
| { electric, | 4,744 17 | |
| Income from sale of gas, | | \$4,527 87 |
| sale of electric light and power, | | 4,936 92 |
| other sources, electric, | | 117 15 |
| Balance to profit and loss, { gas, | 2,002 73 | |
| { electric, | 309 90 | |
| | <u>\$9,581 94</u> | <u>\$9,581 94</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$10,301 28 |
| Balance of gas manufacturing account, | | 2,002 73 |
| Balance of electric manufacturing account, | | 309 90 |
| Merchandise accounts, | | 439 32 |
| Interest paid, | \$925 00 | |
| Depreciation, | 469 41 | |
| Balance June 30, 1893, | 11,658 82 | |
| | <u>\$13,053 23</u> | <u>\$13,053 23</u> |

ANDOVER ELECTRIC COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$12,380 80 |
| Steam plant, | 12,387 70 |
| Electric plant, | 17,153 94 |
| Lines, meters, lamps and globes, | 15,771 10 |
| Due for electric light and power, | 972 38 |
| Fuel on hand, | 180 00 |
| Carbons on hand, | 20 00 |
| Oil and waste on hand, | 48 86 |
| Incandescent lamps on hand, | 171 90 |
| Globes on hand, | 5 10 |
| Other electric materials on hand, | 464 50 |
| Electric fixtures on hand, | 176 65 |
| Horses, wagons, etc., | 331 70 |
| Sundry accounts due the company, | 514 34 |
| Office furniture, | 135 40 |
| Cash on hand, | 85 89 |
| Total assets, as per books of the company, | <u>\$60,800 26</u> |
| Profit and loss balance (if deficit), | 2,000 18 |
| | <u>\$62,800 44</u> |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 22,000 00 |
| Notes payable, | 8,631 00 |
| Unpaid bills, | 1,598 10 |
| Interest due but not paid, | 571 34 |

Total liabilities, as per books of the company, \$62,800 44

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$8,883 94 | |
| Sale of electric light and power, | | \$11,246 67 |
| Balance to profit and loss, | 2,362 73 | |
| | <u>\$11,246 67</u> | <u>\$11,246 67</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$2,068 74 |
| Jobbing and fixture accounts, | | 540 68 |
| Balance of electric manufacturing account, | | 2,362 73 |
| Bond premiums, | | 50 00 |
| Rents, | | 150 00 |
| Construction previously charged off, | | 528 42 |
| Other items of income, | | 151 78 |
| Interest paid, | \$3,052 53 | |
| Depreciation, | 4,800 00 | |
| Balance June 30, 1893, | | 2,000 18 |
| | <u>\$7,852 53</u> | <u>\$7,852 53</u> |

ARLINGTON GAS LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$1,000 00 |
| Machinery and manufacturing appliances, | 35,000 00 |
| Street mains, | 34,000 00 |
| Due for gas, | 3,007 54 |
| Gas coal on hand, | 697 64 |
| Tar on hand, | 173 25 |
| Cash on hand, | 4,634 53 |

Total assets, as per books of the company, \$78,512 96

LIABILITIES.

| | |
|-----------------------------|-------------|
| Capital stock, | \$70,000 00 |
| Unpaid dividends, | 780 00 |

Total liabilities, as per books of the company, \$70,780 00
 Profit and loss balance (if surplus), 7,732 96
\$78,512 96

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$11,512 38 | |
| Income from sale of gas, | | \$14,798 62 |
| residuals, | | 915 00 |
| other sources, gas, | | 24 00 |
| Balance to profit and loss, | 4,226 24 | |
| | <u>\$15,737 62</u> | <u>\$15,737 62</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$8,182 95 |
| Balance of gas manufacturing account, | | 4,225 24 |
| Dividends declared, | \$4,200 00 | |
| Depreciation, | 475 23 | |
| Balance June 30, 1893, | 7,732 96 | |
| | <u>\$12,408 19</u> | <u>\$12,408 19</u> |

ATHOL GAS AND ELECTRIC COMPANY.

ASSETS.

| | | |
|---|--|--------------------|
| Real estate (gas), | | |
| Machinery and manufacturing appliances (gas), | | |
| Street mains (gas), | | |
| Meters (gas), | | |
| Due for gas, | | 521 80 |
| Gas coal on hand, | | 409 14 |
| Enrichers on hand, | | 206 25 |
| Other gas materials on hand, | | 225 00 |
| Real estate (electric), | | |
| Steam plant (electric), | | |
| Electric plant, | | 11,660 49 |
| Lines, meters, lamps and globes (electric), | | |
| Patent rights, | | |
| Due for electric light and power, | | 260 84 |
| Fuel on hand (electric), | | 90 00 |
| Carbons on hand, | | 27 00 |
| Other electric materials on hand, | | 150 00 |
| Cash on hand, | | 242 28 |
| Total assets, as per books of the company, | | <u>\$67,127 29</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$25,000 00 |
| Bonds issued, | 25,000 00 |
| Notes payable, | 8,486 56 |
| Unpaid bills, | 6,252 30 |
| Total liabilities, as per books of the company, | <u>\$64,738 86</u> |
| Profit and loss balance (if surplus), | 2,388 43 |
| | <u>\$67,127 29</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$5,272 67 | |
| { electric, | 3,930 85 | |
| Income from sale of gas, | | \$7,693 66 |
| sale of electric light and power, | | 3,288 11 |
| Balance to profit and loss, { gas, | 2,420 99 | |
| { electric, | | 642 74 |
| | <u>\$11,624 51</u> | <u>\$11,624 51</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$2,225 18 |
| Balance of gas manufacturing account, | | 2,420 99 |
| Balance of electric manufacturing account, | \$642 74 | |
| Supplies, gas, | | 840 39 |
| Supplies, electric, | | 267 00 |
| Interest paid, | 1,230 00 | |
| Depreciation, | 1,492 39 | |
| Balance June 30, 1893, | 2,388 43 | |
| | <u>\$5,753 56</u> | <u>\$5,753 56</u> |

ATTLEBOROUGH GAS LIGHT COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$12,187 18 |
| Machinery and manufacturing appliances, | 26,507 69 |
| Street mains, | 12,603 09 |
| Meters, | 2,310 12 |
| Due for gas, | 2,204 97 |
| Gas coal on hand, | 5,484 60 |
| Coke on hand, | 16 00 |
| Tar on hand, | 390 94 |
| Purifying materials on hand, | 33 75 |
| Other gas materials, tools and supplies on hand, | 271 57 |
| Stoves and lamps on hand, | 442 34 |
| Sundry accounts due the company, | 299 11 |
| Office furniture, | 131 20 |
| Cash on hand, | 103 97 |
| Total assets, as per books of the company, | <u>\$62,986 53</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$46,400 00 |
| Unpaid bills, | 462 51 |
| Total liabilities, as per books of the company, | <u>\$46,862 51</u> |
| Profit and loss balance (if surplus), | 16,124 02 |
| | <u>\$62,986 53</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$10,668 69 | |
| Income from sale of gas, | | \$18,122 20 |
| residuals, | | 1,788 96 |
| other sources, | | 3 60 |
| Balance to profit and loss, | 9,246 17 | |
| | <u>\$19,914 76</u> | <u>\$19,914 76</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$11,515 20 |
| Balance of gas manufacturing account, | | 9,246 17 |
| Interest received, | | 54 53 |
| Other items of income, | | 78 41 |
| Dividends declared, | \$4,640 00 | |
| Depreciation, | 130 29 | |
| Balance June 30, 1893, | 16,124 02 | |
| | <hr/> | <hr/> |
| | \$20,894 31 | \$20,894 31 |

BAY STATE GAS COMPANY.

ASSETS.

| | | |
|--|----------------|----------------|
| Real estate, | | |
| Machinery and manufacturing appliances, } | \$4,954,330 95 | |
| Street mains, | | |
| Meters, | | 1,761 10 |
| Due for gas, | | 20,474 02 |
| Gas coal on hand, | | 10,154 93 |
| Coke on hand, | | 71 20 |
| Tar on hand, | | 39 00 |
| Enrichers on hand, | | 12,210 81 |
| Purifying materials on hand, | | 2,009 50 |
| Other gas materials on hand, | | 10,393 00 |
| Horses, wagons, etc., | | 790 50 |
| Sundry accounts due the company, | | 206 10 |
| Cash on hand, | | 2,735 13 |
| Notes receivable, | | 7,400 00 |
| Investments, | | 25,000 00 |
| Works, improvement, | | 74,146 11 |
| Gas on hand, | | 729 90 |
| | | <hr/> |
| Total assets, as per books of the company, | | \$5,122,452 25 |

LIABILITIES.

| | |
|---|----------------|
| Capital stock, | \$500,000 00 |
| Notes payable, | 4,507,000 00 |
| Unpaid bills, | 37,617 57 |
| Amounts due from the company, not included above, | 4,525 86 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$5,049,143 43 |
| Profit and loss balance (if surplus), | 73,308 82 |
| | <hr/> |
| | \$5,122,452 25 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------|--------------|
| Operating expenses, | \$358,693 73 | |
| Income from sale of gas, | | \$862,097 25 |
| residuals, | | 195 45 |
| Balance to profit and loss, | 503,598 97 | |
| | <hr/> | <hr/> |
| | \$862,292 70 | \$862,292 70 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$5,816 29 |
| Balance of gas manufacturing account, | | 503,598 97 |
| Dividends declared, | \$43,750 00 | |
| Interest paid, | 392,356 44 | |
| Balance June 30, 1893, | 73,308 82 | |
| | <u>\$509,415 26</u> | <u>\$509,415 26</u> |

BEVERLY GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|---------------------|
| Real estate (gas), | \$23,000 00 |
| Machinery and manufacturing appliances (gas), | 8,324 39 |
| Street mains (gas), | 15,654 31 |
| Meters (gas), | 4,409 69 |
| Due for gas, | 4,150 85 |
| Coke on hand, | 36 00 |
| Tar on hand, | 735 00 |
| Enrichers on hand, | 1 23 |
| Purifying materials on hand, | 10 00 |
| Stoves on hand, | 224 77 |
| Gas fixtures on hand, and Lungren lamps, | 465 53 |
| Real estate (electric), | 17,257 64 |
| Steam plant (electric), | 54,232 09 |
| Electric plant, | |
| Lines, meters, lamps and globes (electric), | 1,197 26 |
| Due for electric light and power, | |
| Carbons on hand, | 40 00 |
| Oil and waste on hand, | 13 12 |
| Incandescent lamps on hand, | 40 80 |
| Sundry accounts due the company, | 474 37 |
| Office furniture, | 577 46 |
| Cash on hand, | 170 03 |
| Investments, | 1,000 00 |
| Total assets, as per books of the company, | <u>\$132,014 54</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$92,000 00 |
| Bonds issued, | 11,800 00 |
| Unpaid bills, | 566 00 |
| Total liabilities, as per books of the company, | <u>\$104,366 00</u> |
| Profit and loss balance (if surplus), | 27,648 54 |
| | <u>\$132,014 54</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$10,003 65 | |
| { electric, | 7,692 55 | |
| Income from sale of gas, | | \$16,448 67 |
| residuals, | | 1,490 95 |
| other sources, gas, | | 81 85 |
| sale of electric light and power, | | 11,502 88 |
| other sources, electric, | | 97 40 |
| Balance to profit and loss, { gas, | 8,017 82 | |
| { electric, | 3,907 73 | |
| | <u>\$29,621 75</u> | <u>\$29,621 75</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$21,940 96 |
| Balance of gas manufacturing account, | | 8,017 82 |
| Balance of electric manufacturing account, | | 3,907 73 |
| Interest received, | | 73 34 |
| Rents, | | 99 00 |
| Other items of income, | | 32 43 |
| Dividends declared, | \$5,520 00 | |
| Interest paid, | 881 06 | |
| Other items, | 21 68 | |
| Balance June 30, 1893, | 27,648 54 | |
| | <u>\$34,071 28</u> | <u>\$34,071 28</u> |

BLUE HILL ELECTRIC COMPANY.

ASSETS

| | |
|--|--------------------|
| Real estate, | \$3,742 40 |
| Steam plant, | 5,951 33 |
| Electric plant, | 10,577 52 |
| Lines, meters, lamps and globes, | 21,828 09 |
| Oil and waste on hand, | 2 47 |
| Horses, wagons, etc., | 307 50 |
| Cash on hand, | 93 10 |
| Total assets, as per books of the company, | <u>\$42,502 41</u> |
| Profit and loss balance (if deficit), | 947 59 |
| | <u>\$43,450 00</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$22,000 00 |
| Bonds issued, | 20,000 00 |
| Notes payable, | 1,450 00 |
| Total liabilities, as per books of the company, | <u>\$43,450 00</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$4,048 44 | |
| Income from sale of electric light and power, | | \$4,987 63 |
| Balance to profit and loss, | 939 19 | |
| | <u>\$4,987 63</u> | <u>\$4,987 63</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | \$1,286 78 | |
| Balance of electric manufacturing account, | | \$939 19 |
| Interest paid, | 600 00 | |
| Balance June 30, 1893, | | 947 59 |
| | <u>\$1,886 78</u> | <u>\$1,886 78</u> |

BOSTON ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|---|-----------------------|
| Real estate, | \$486,077 27 |
| Steam plant, | 358,443 20 |
| Electric plant, | 390,458 10 |
| Lines, meters, lamps and globes, | 914,835 87 |
| Due for electric light and power, | 53,936 98 |
| Fuel on hand, | 6,315 30 |
| Carbons on hand, | 2,415 28 |
| Oil and waste on hand, | 190 52 |
| Incandescent lamps on hand, | 7,393 22 |
| Globes on hand, | 1,388 63 |
| Other electric materials on hand, | 26,006 69 |
| Motors on hand, | 3,369 95 |
| Horses, wagons, etc., | 2,031 13 |
| Sundry accounts due the company, | 14,210 46 |
| Office furniture, | 3,525 17 |
| Cash on hand, | 83,593 65 |
| Total assets, as per books of the company, | \$2,354,191 42 |

LIABILITIES.

| | |
|--|-----------------------|
| Capital stock, | \$1,596,200 00 |
| Bonds issued, | 300,000 00 |
| Notes payable, | 128,056 09 |
| Unpaid bills, | 13,531 32 |
| Interest, | 6,545 00 |
| Total liabilities, as per books of the company, | \$2,044,332 41 |
| Profit and loss balance, | 309,859 01 |
| | \$2,354,191 42 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Operating expenses, | \$372,508 85 | |
| Income from sale of electric light and power, | | \$536,287 89 |
| other sources, | | 76 75 |
| Balance to profit and loss, | 163,855 79 | |
| | \$536,364 64 | \$536,364 64 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Balance June 30, 1892, | | \$248,967 57 |
| Balance of electric manufacturing account, | | 163,855 79 |
| Rents, | | 4,375 00 |
| Other items of income, | | 25,036 65 |
| Dividends declared, | \$108,510 00 | |
| Interest paid, | 23,865 00 | |
| Balance June 30, 1893, | 309,859 01 | |
| | \$442,234 01 | \$442,234 01 |

BOSTON GAS LIGHT COMPANY.

ASSETS.

| | |
|---|-----------------------|
| Real estate, | \$1,435,180 77 |
| Machinery and manufacturing appliances, | 3,234,027 42 |
| Street mains, | 1,937,412 13 |
| Meters, | 386,388 20 |
| Due for gas, | 71,361 05 |
| Gas coal on hand, | 14,490 36 |
| Coke on hand, | 4,595 00 |
| Tar on hand, | 6,474 60 |
| Enrichers on hand, | 6,176 20 |
| Purifying materials on hand, | 958 15 |
| Other gas materials on hand, | 40,936 89 |
| Sundry accounts due the company, | 20,834 22 |
| Office furniture, | 11,380 76 |
| Cash on hand, | 126,165 86 |
| Notes receivable, | 95,000 00 |
| Ammonia, | 408 62 |
| Gas on hand, | 2,617 60 |
| Total assets, as per books of the company, | \$7,394,307 83 |

LIABILITIES.

| | |
|--|-----------------------|
| Capital stock, | \$2,500,000 00 |
| Notes payable, | 180,000 00 |
| Unpaid bills, | 49,590 46 |
| Deposits, | 21,730 00 |
| Reserve fund, | 290,954 91 |
| Contingent fund, } | |
| Depreciation fund, } | |
| Amounts due from the company, not included above, | 10,000 00 |
| Total liabilities, as per books of the company, | \$3,052,275 37 |
| Profit and loss balance, | 4,342,032 46 |
| | \$7,394,307 83 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-----------------------|-----------------------|
| Operating expenses, | \$1,273,790 53 | |
| Income from sale of gas, | | \$1,490,301 04 |
| residuals, | | 55,261 63 |
| other sources, | | 142 60 |
| Balance to profit and loss, | 271,914 74 | |
| | \$1,545,705 27 | \$1,545,705 27 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-----------------------|-----------------------|
| Balance June 30, 1892, | | \$4,357,403 38 |
| Balance of gas manufacturing account, | | 271,914 74 |
| Rents, | | 20,265 95 |
| Dividends declared, | \$250,000 00 | |
| Interest paid, | 7,551 61 | |
| Rent of street mains, | 50,000 00 | |
| Balance June 30, 1893, | 4,342,032 46 | |
| | \$4,649,584 07 | \$4,649,584 07 |

BRIDGEWATER ELECTRIC COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$3,221 86 |
| Steam plant, | 5,629 33 |
| Electric plant, | 5,289 25 |
| Lines, meters, lamps and globes, | 16,688 83 |
| Due for electric light and power, | 590 15 |
| Fuel on hand, | 131 25 |
| Carbons on hand, | 69 50 |
| Oil and waste on hand, | 32 55 |
| Incandescent lamps on hand, } | 40 90 |
| Globes on hand, | |
| Sundry accounts due the company, | 19 85 |
| Cash on hand, | 244 70 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$31,958 17 |
| Profit and loss balance, | 1,963 37 |

\$33,921 54

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$15,000 00 |
| Bonds issued, | 15,000 00 |
| Unpaid bills, | 2,571 54 |
| Interest due but not paid, | 1,350 00 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$33,921 54 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------------|------------------|
| Operating expenses, | \$4,326 77 | |
| Sale of electric light and power, | | \$6,418 38 |
| Other sources, | | 19 85 |
| Balance to profit and loss, | 2,111 46 | |
| | <hr/> \$6,438 23 | <hr/> \$6,438 23 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------------|------------------|
| Balance June 30, 1892, | \$3,275 36 | |
| Balance of electric manufacturing account, | | \$2,111 46 |
| Other items of income, | | 100 53 |
| Dividends declared, | 900 00 | |
| Balance June 30, 1893, | | 1,963 37 |
| | <hr/> \$4,175 36 | <hr/> \$4,175 36 |

BROCKTON GAS LIGHT COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$49,000 00 |
| Machinery and manufacturing appliances, } | 130,430 00 |
| Street mains, | |
| Motors, | 4,140 33 |
| Due for gas, | 4,360 55 |

| | |
|--|--------------|
| Gas coal on hand, | \$1,287 50 |
| Coke on hand, | 30 00 |
| Tar on hand, | 860 00 |
| Enrichers on hand, | 10 00 |
| Purifying materials on hand, | 60 00 |
| Other gas materials on hand, | 3,741 02 |
| Gas on hand, | 41 50 |
| Stoves on hand, | 808 67 |
| Lamps on hand, | 2,276 33 |
| Gas fixtures on hand, | 308 63 |
| Patent rights, | 79,000 00 |
| Horses, wagons, etc., | 484 90 |
| Sundry accounts due the company, | 936 82 |
| Office furniture, | 164 15 |
| Cash on hand, | 829 28 |
| Investments, | 7,220 41 |
| <hr/> | |
| Total assets, as per books of the company, | \$285,980 09 |
| Profit and loss balance, | 38,863 15 |
| <hr/> | |
| | \$324,843 24 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$178,500 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 9,000 00 |
| Unpaid bills, | 29,468 24 |
| Deposits, | 20 00 |
| Unpaid dividends, | 5,355 00 |
| Interest due but not paid, | 2,500 00 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$324,843 24 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$18,107 59 | |
| Income from sale of gas, | | \$32,069 67 |
| residuals, | | 2,480 22 |
| other sources, | | 439 37 |
| Balance to profit and loss, | 16,871 67 | |
| <hr/> | | <hr/> |
| | \$34,979 26 | \$34,979 26 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | \$39,327 76 | |
| Balance of gas manufacturing account, | | \$16,871 67 |
| Interest received, | | 158 52 |
| Rents, | | 50 00 |
| Other items of income, | | 64 42 |
| Dividends declared, | 10,680 00 | |
| Interest paid, | 6,000 00 | |
| Balance June 30, 1893, | | 38,863 15 |
| <hr/> | | <hr/> |
| | \$56,007 76 | \$56,007 76 |

BROOKLINE GAS LIGHT COMPANY.

ASSETS.

| | |
|---|----------------|
| Real estate (gas), | \$492,621 27 |
| Machinery and manufacturing appliances (gas), | 86,185 71 |
| Machinery and manufacturing appliances (gas), in process, | 71,713 86 |
| Street mains (gas), | 271,372 31 |
| Street mains (gas), in process, | 216,497 33 |
| Meters (gas), | 21,512 63 |
| Due for gas, | 24,781 39 |
| Gas coal on hand, | 19,354 50 |
| Coke on hand, | 150 00 |
| Tar on hand, | 200 00 |
| Enrichers on hand, | 10 00 |
| Purifying materials on hand, | 635 00 |
| Other gas materials on hand, | 3,596 35 |
| Real estate (electric), | 47,300 00 |
| Steam plant (electric), | 70,849 22 |
| Electric plant, | 81,279 81 |
| Lines, meters, lamps and globes (electric), | 122,748 29 |
| Due for electric light and power, | 9,968 29 |
| Fuel on hand (electric), | 200 00 |
| Carbons on hand, | 541 50 |
| Oil and waste on hand, | 188 05 |
| Incandescent lamps on hand, | 2,776 71 |
| Globes on hand, | 68 35 |
| Other electric materials on hand, | 2,284 60 |
| Horses, wagons, etc., | 2,080 60 |
| Sundry accounts due the company, | 1,032 05 |
| Office furniture, | 1,498 50 |
| Cash on hand, | 76,591 86 |
| Investments, | 500 00 |
| Sinking fund, | 6,000 00 |
| Total assets, as per books of the company, | \$1,634,538 18 |

LIABILITIES.

| | |
|--------------------------------------|----------------|
| Capital stock, | \$1,000,000 00 |
| Bonds issued, | 350,000 00 |
| Notes payable, | 155,000 00 |
| Unpaid bills, | 73,712 33 |
| Deposits, | 786 67 |
| Interest due but not paid, | 5,481 25 |

| | |
|---|----------------|
| Total liabilities, as per books of the company, | \$1,584,980 25 |
| Profit and loss balance, | 49,557 93 |

\$1,634,538 18

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$96,323 86 | |
| { electric, | 70,141 36 | |
| Income from sale of gas, | | \$136,935 34 |
| residuals, | | 23,055 81 |
| sale of electric light and power, | | 60,215 11 |
| other sources, electric, | | 801 00 |
| Balance to profit and loss, { gas, | 63,667 29 | |
| { electric, | | 9,125 25 |
| | \$230,132 51 | \$230,132 51 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Balance June 30, 1892, | | \$43,868 69 |
| Balance of gas manufacturing account, | | 63,667 29 |
| Balance of electric manufacturing account, | \$9,125 25 | |
| Interest received, | | 488 94 |
| Premiums on new stock, | | 21,976 25 |
| Other items of income, | | 342 36 |
| Dividends declared, | 35,500 00 | |
| Interest paid, | 31,869 78 | |
| Fittings account, | 2,132 27 | |
| Depreciation, | 792 18 | |
| Commissions on sale of new stock, | 812 50 | |
| Other items, | 553 62 | |
| Balance June 30, 1893, | 49,557 93 | |
| | <u>\$130,343 53</u> | <u>\$130,343 53</u> |

CAMBRIDGE ELECTRIC LIGHT COMPANY.

ASSETS.

| | | | |
|--|---|--|---------------------|
| Real estate, | } | | |
| Steam plant, | | | |
| Electric plant, | | | \$432,557 01 |
| Lines, meters, lamps and globes, | | | |
| Construction account, | | | 8,707 40 |
| Due for electric light and power, | | | 12,718 62 |
| Fuel on hand, | | | 2,223 48 |
| Carbons on hand, | | | 847 08 |
| Oil and waste on hand, | | | 140 73 |
| Incandescent lamps on hand, | } | | |
| Globes on hand, | | | 2,200 00 |
| Other materials on hand, | | | |
| Unexpired insurance, | | | 800 00 |
| Horses, wagons, etc., | | | 536 33 |
| Cash on hand, | | | 2,497 82 |
| Franchise, | | | 15,000 00 |
| Total assets, as per books of the company, | | | <u>\$478,228 47</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$200,000 00 |
| Bonds issued, | 200,000 00 |
| Notes payable, | 30,000 00 |
| Unpaid bills, | 6,449 69 |
| Interest due but not paid, | 6,425 00 |
| Reserved fund, | 10,000 00 |
| Total liabilities, as per books of the company, | <u>\$452,874 69</u> |
| Profit and loss balance, | 25,353 78 |
| | <u>\$478,228 47</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$58,336 18 | |
| Income from sale of electric light and power, . . . | | \$92,073 40 |
| Balance to profit and loss, | 33,737 22 | |
| | <u>\$92,073 40</u> | <u>\$92,073 40</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$18,855 75 |
| Balance of electric manufacturing account, . . . | | 33,737 22 |
| Wiring account, | | 841 42 |
| Dividends declared, | \$12,000 00 | |
| Interest paid, | 14,230 61 | |
| Bad debts, | 1,600 00 | |
| Other items, | 250 00 | |
| Balance June 30, 1893, | 25,353 78 | |
| | <u>\$53,434 39</u> | <u>\$53,434 39</u> |

CAMBRIDGE GAS LIGHT COMPANY.

ASSETS.

| | |
|--|-----------------------|
| Real estate, | \$66,142 66 |
| Machinery and manufacturing appliances, } | |
| Street mains, | 751,633 49 |
| Meters, | |
| Due for gas, | 41,516 32 |
| Gas coal on hand, | 5,364 17 |
| Coke on hand, | 1,250 00 |
| Tar on hand, | 855 00 |
| Other gas materials on hand, | 5,984 00 |
| Gas fixtures on hand, Lungren lamps, | 3,531 50 |
| Sundry accounts due the company, | 7,329 71 |
| Cash on hand, | 22,582 48 |
| Notes receivable, | 43 74 |
| Investments, | 107,081 66 |
| Total assets, as per books of the company, | <u>\$1,013,314 73</u> |

LIABILITIES.

| | |
|---|-----------------------|
| Capital stock, | \$700,000 00 |
| Deposits, | 2,516 60 |
| Amounts due from the company, not included above, | 17 95 |
| Total liabilities, as per books of the company, | <u>\$702,534 55</u> |
| Profit and loss balance, | 310,780 18 |
| | <u>\$1,013,314 73</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Operating expenses, | \$134,794 06 | |
| Income from sale of gas, | | \$208,365 64 |
| residuals, | | 24,933 03 |
| other sources, | | 510 14 |
| Balance to profit and loss, | 99,014 75 | |
| | <u>\$233,808 81</u> | <u>\$233,808 81</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Balance June 30, 1892, | | \$278,725 45 |
| Balance of gas manufacturing account, | | 99,014 75 |
| Interest received, | | 2,147 42 |
| Rents, | | 892 56 |
| Dividends declared, | \$70,000 00 | |
| Balance June 30, 1893, | 310,780 18 | |
| | <hr/> | <hr/> |
| | \$380,780 18 | \$380,780 18 |

CANTON.

(See BLUE HILL ELECTRIC COMPANY.)

CHARLESTOWN GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate (gas), | \$567,590 91 |
| Machinery and manufacturing appliances (gas), | 20,660 00 |
| Due for gas, | 18,620 80 |
| Gas coal on hand, | 4,499 21 |
| Coke on hand, | 216 00 |
| Tar on hand, | 1,687 75 |
| Enrichers on hand, | 220 81 |
| Electric plant, | 94,914 19 |
| Electric light extension, | 2,059 79 |
| Due for electric light and power, | 2,195 56 |
| Cash on hand, | 5,371 24 |
| Investments, | 3,600 00 |
| Total assets, as per books of the company, | <hr/> \$721,636 26 |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$500,000 00 |
| Notes payable, | 72,164 00 |
| Unpaid bills, | 2,497 89 |
| Deposits, | 713 62 |
| Unpaid dividends, | 620 00 |
| Reserve fund, | 3,600 00 |
| Total liabilities, as per books of the company, | <hr/> \$579,595 51 |
| Profit and loss balance, | 142,040 75 |
| | <hr/> |
| | \$721,636 26 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$94,294 84 | |
| { electric, | 27,016 99 | |
| Income from sale of gas, | | \$132,831 85 |
| residuals, | | 17,666 39 |
| sale of electric light and power, | | 36,668 84 |
| Balance to profit and loss, { gas, | 56,203 40 | |
| { electric, | 9,651 85 | |
| | <hr/> | <hr/> |
| | \$187,167 08 | \$187,167 08 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Balance June 30, 1892, | | \$132,325 28 |
| Balance of gas manufacturing account, | | 56,203 40 |
| Balance of electric manufacturing account, | | 9,651 85 |
| Rents, | | 144 00 |
| Shop account, | | 905 78 |
| Dividends declared, | \$50,000 00 | |
| Interest paid, | 3,189 56 | |
| Depreciation, electric plant, | 4,000 00 | |
| Balance June 30, 1893, | 142,040 75 | |
| | <hr/> | <hr/> |
| | \$199,230 31 | \$199,230 31 |

CHELSEA GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate (gas), | \$170,000 00 |
| Machinery and manufacturing appliances (gas), | 130,000 00 |
| Street mains (gas), | |
| Meters (gas), | |
| Due for gas, | 9,682 35 |
| Gas coal on hand, | 6,333 85 |
| Real estate (electric), | 12,757 16 |
| Steam plant (electric), | 30,766 02 |
| Electric plant, | 35,839 18 |
| Lines, meters, lamps and globes (electric), | 45,313 10 |
| Due for electric light and power, | 4,529 29 |
| Sundry accounts due the company, | 569 53 |
| Cash on hand, | 5,394 21 |
| | <hr/> |
| Total assets, as per books of the company, | \$451,184 69 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$300,000 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 5,000 00 |
| Deposits, | 1,298 00 |
| Unpaid dividends, | 75 00 |
| Amounts reserved for discounts, | 300 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$406,673 00 |
| Profit and loss balance, | 44,511 69 |
| | <hr/> |
| | \$451,184 69 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$48,615 42 | |
| { electric, | 27,691 05 | |
| Income from sale of gas, | | \$56,581 33 |
| residuals, | | 7,998 77 |
| sale of electric light and power, | | 36,769 55 |
| Balance to profit and loss, { gas, | 15,964 68 | |
| { electric, | 9,078 50 | |
| | <hr/> | <hr/> |
| | \$101,349 65 | \$101,349 65 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$48,415 56 |
| Balance of gas manufacturing account, | | 15,964 68 |
| Balance of electric manufacturing account, | | 9,078 50 |
| Bond premiums, | | 410 00 |
| Rents, | | 212 00 |
| Jobbing account, | | 546 80 |
| Other items of income, | | 23 69 |
| Dividends declared, | \$18,000 00 | |
| Interest paid, | 4,092 36 | |
| Construction charged off, | 5,662 10 | |
| Depreciation, | 2,385 08 | |
| Balance June 30, 1893, | 44,511 69 | |
| | <hr/> | <hr/> |
| | \$74,651 23 | \$74,651 23 |

CHICOPEE ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$1,020 77 |
| Steam plant, | 2,414 16 |
| Electric plant, | 5,524 76 |
| Lines, meters, lamps and globes, | 4,296 99 |
| Due for electric light and power, | 656 25 |
| Carbons on hand, | 30 00 |
| Oil and waste on hand, | 10 00 |
| | <hr/> |
| Total assets, as per books of the company, | \$18,952 93 |
| Profit and loss balance, | 3,441 93 |
| | <hr/> |
| | \$17,394 86 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$10,000 00 |
| Notes payable, | 7,050 00 |
| Unpaid bills, | 344 86 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$17,394 86 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$3,145 80 | |
| Income from sale of electric light and power, | | \$6,490 03 |
| Balance to profit and loss, | 3,344 23 | |
| | <hr/> | <hr/> |
| | \$6,490 03 | \$6,490 03 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$2,058 58 |
| Balance of electric manufacturing account, | | 3,344 23 |
| Interest paid, | \$203 38 | |
| Construction charged off, | 8,189 02 | |
| Depreciation, | 452 34 | |
| Balance June 30, 1893, | | 3,441 93 |
| | <hr/> | <hr/> |
| | \$8,844 74 | \$8,844 74 |

CHICOPEE GAS WORKS.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$20,000 00 |
| Machinery and manufacturing appliances, | 1,684 00 |
| Street mains, | 6,500 00 |
| Meters, | 2,200 00 |
| Due for gas, | 738 78 |
| Gas coal on hand, | 361 75 |
| Enrichers on hand, | 101 10 |
| Purifying materials on hand, | 100 00 |
| Sundry accounts due the company, | 500 00 |
| Office furniture, | 100 00 |
| Cash on hand, | 98 49 |
| Notes receivable, | 7,050 00 |
| Investments, | 10,000 00 |

Total assets, as per books of the company, \$49,434 12

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$30,000 00 |
|--------------------------|-------------|

Total liabilities, as per books of the company, \$30,000 00

| | |
|------------------------------------|-----------|
| Profit and loss balance, | 19,434 12 |
|------------------------------------|-----------|

\$49,434 12

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$11,382 43 | |
| Income from sale of gas, | | \$14,734 00 |
| residuals, | | 5 25 |
| Balance to profit and loss, | 3,356 82 | |
| | \$14,739 25 | \$14,739 25 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$25,255 03 |
| Balance of gas manufacturing account, | | 3,356 82 |
| Interest received, | | 395 69 |
| Dividends declared, | \$1,800 00 | |
| Construction charged off, | 7,441 58 | |
| Depreciation, | 155 00 | |
| Old bills charged off, | 176 84 | |
| Balance June 30, 1893, | 19,434 12 | |
| | \$29,007 54 | \$29,007 54 |

CHICOPEE MANUFACTURING COMPANY.

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$5,179 14 | |
| Income from sale of gas, | | \$3,756 50 |
| Balance to profit and loss, | | 1,422 64 |
| | \$5,179 14 | \$5,179 14 |

CITIZENS' GAS LIGHT COMPANY OF QUINCY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$9,500 00 |
| Machinery and manufacturing appliances, | 15,000 00 |
| Street mains, | 32,598 10 |
| Meters, | 3,007 76 |
| Due for gas, | 1,889 46 |
| Gas coal on hand, | 3,712 50 |
| Coke on hand, | 12 00 |
| Tar on hand, | 700 00 |
| Enrichers on hand, | 30 00 |
| Other gas materials on hand, | 140 51 |
| Stoves on hand, | 518 65 |
| Gas fixtures on hand, | 400 00 |
| Horses, wagons, etc., | 175 00 |
| Office furniture, | 100 00 |
| Cash on hand, | 507 39 |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$68,291 37 |
| Profit and loss balance, | 47,317 21 |
| | <hr/> |
| | \$115,608 58 |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$53,000 00 |
| Notes payable, | 57,000 00 |
| Unpaid bills, | 5,608 58 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$115,608 58 |
|---|--------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$13,707 49 | |
| Income from sale of gas, | | \$13,779 65 |
| residuals, | | 1,613 85 |
| other sources, | | 201 40 |
| Balance to profit and loss, | 1,887 41 | |
| | <hr/> | <hr/> |
| | \$15,594 90 | \$15,594 90 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | \$46,623 88 | |
| Balance of gas manufacturing account, | | \$1,887 41 |
| Rents, | | 128 60 |
| Fitting account, | | 568 84 |
| Other items of income, | | 45 21 |
| Interest paid, | 1,990 05 | |
| Old accounts not previously included, | 1,333 34 | |
| Balance June 30, 1893, | | 47,317 21 |
| | <hr/> | <hr/> |
| | \$49,947 27 | \$49,947 27 |

CITIZENS' GAS LIGHT COMPANY OF READING, SOUTH READING
AND STONEHAM.

(Works at Wakefield.)

ASSETS.

| | |
|---|---------------------|
| Real estate (gas), | \$21,260 00 |
| Machinery and manufacturing appliances (gas), | 55,742 64 |
| Street mains (gas), | 29,672 40 |
| Meters (gas), | 2,126 75 |
| Due for gas, | 2,202 31 |
| Gas coal on hand, | 625 62 |
| Coke on hand, | 81 22 |
| Purifying materials on hand, | 100 00 |
| Other gas materials on hand, | 1,006 49 |
| Stoves on hand, | 43 36 |
| Real estate (electric), | 12,307 76 |
| Steam plant (electric), | 17,322 86 |
| Electric plant, | 18,475 76 |
| Lines, meters, lamps and globes (electric), | 23,224 51 |
| Patent rights, | 5,000 00 |
| Due for electric light and power, | 1,259 52 |
| Fuel on hand (electric light), | 345 95 |
| Carbons on hand, | 4 50 |
| Oil and waste on hand, | 40 00 |
| Incandescent lamps on hand, | 130 35 |
| Meters, | 856 38 |
| Motors, tools, etc., on hand, | 652 56 |
| Horses, wagons, etc., | 637 30 |
| Sundry accounts due the company, | 784 84 |
| Office furniture, | 179 32 |
| Cash on hand, | 362 98 |
| Unexpired insurance, etc., | 113 90 |
| Total assets, as per books of the company, | \$194,559 28 |
| Profit and loss balance, | 4,808 63 |
| | <u>\$199,367 91</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$95,300 00 |
| Bonds issued, | 70,000 00 |
| Notes payable, | 24,422 38 |
| Unpaid bills, | 8,395 53 |
| Unpaid dividends, | 25 00 |
| Accrued interest, | 1,225 00 |
| Total liabilities, as per books of the company, | <u>\$199,367 91</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$11,776 81 | |
| { electric, | 7,124 58 | |
| Income from sale of gas, | | \$12,606 37 |
| residuals, | | 1,298 00 |
| sale of electric light and power, | | 7,386 93 |
| Balance to profit and loss, { gas, | 2,127 56 | |
| { electric, | 262 35 | |
| | <u>\$21,291 30</u> | <u>\$21,291 30</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | \$1,186 81 | |
| Balance of gas manufacturing account, | | \$2,127 56 |
| Balance of electric manufacturing account, | | 262 35 |
| Jobbing account, | | 126 52 |
| Interest paid, | 5,301 37 | |
| Old bills not previously reported, | 607 50 | |
| Bad debts, | 229 38 | |
| Balance June 30, 1893, | | 4,808 63 |
| | <u>\$7,325 06</u> | <u>\$7,325 06</u> |

CLINTON GAS LIGHT COMPANY.

ASSETS.

| | |
|---|---------------------|
| Real estate (gas), | \$27,000 00 |
| Street mains (gas), | 9,000 00 |
| Meters (gas), | 500 00 |
| Gas coal on hand, | 1,561 60 |
| Coke on hand, | 62 00 |
| Tar on hand, | 200 00 |
| Enrichers on hand, | 124 02 |
| Purifying materials on hand, | 100 00 |
| Other gas materials on hand, | 296 01 |
| Real estate (electric), | 24,000 00 |
| Steam plant (electric), | 15,000 00 |
| Electric plant, | 17,000 00 |
| Lines, meters, lamps and globes (electric), | 54,000 00 |
| Fuel on hand (electric), | 1,102 12 |
| Carbons on hand, | 153 00 |
| Oil and waste on hand, | 19 90 |
| Incandescent lamps on hand, | 300 25 |
| Globes on hand, | 816 17 |
| Office furniture, | 200 00 |
| Cash on hand, | 4,502 76 |
| Total assets, as per books of the company, | <u>\$155,936 83</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$73,000 00 |
| Notes payable, | 74,000 00 |
| Total liabilities, as per books of the company, | <u>\$147,000 00</u> |
| Profit and loss balance, | 8,936 83 |
| | <u>\$155,936 83</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$12,771 20 | |
| { electric, | 14,920 94 | |
| Income from sale of gas, | | \$12,503 58 |
| residuals, | | 913 80 |
| sale of electric light and power, | | 19,886 62 |
| Balance to profit and loss, { gas, | 646 18 | |
| { electric, | 4,965 68 | |
| | <u>\$33,304 00</u> | <u>\$33,304 00</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$9,216 68 |
| Balance of gas manufacturing account, | | 646 18 |
| Balance of electric manufacturing account, | | 4,965 68 |
| Dividends declared, | \$1,460 00 | |
| Interest paid, | 3,983 96 | |
| Depreciation, | 447 75 | |
| Balance June 30, 1893, | 8,936 83 | |
| | <u>\$14,828 54</u> | <u>\$14,828 54</u> |

COHASSET ELECTRIC COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$4,221 89 |
| Steam plant, | 7,604 85 |
| Electric plant, | 17,438 15 |
| Lines, meters, lamps and globes, | 13,778 61 |
| Due for electric light and power, | 571 82 |
| Fuel on hand, | 145 50 |
| Oil and waste on hand, | 52 10 |
| Incandescent lamps on hand, | 54 00 |
| Other materials on hand, | 35 00 |
| Sundry accounts due the company, | 13 84 |
| Cash on hand, | 920 11 |
| Total assets, as per books of the company, | <u>\$44,835 87</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 9,000 00 |
| Unpaid bills, | 3,108 79 |
| Depreciation fund, | 1,000 00 |
| Total liabilities, as per books of the company, | <u>\$43,108 79</u> |
| Profit and loss balance, | 1,727 08 |
| | <u>\$44,835 87</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$5,257 50 | |
| Income from sale of electric light and power, | | \$7,095 62 |
| Balance to profit and loss, | 1,838 12 | |
| | <u>\$7,095 62</u> | <u>\$7,095 62</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$616 33 |
| Balance of electric manufacturing account, | | 1,838 12 |
| Interest received, | | 23 69 |
| Other items of income, | | 3 00 |
| Interest paid, | \$239 65 | |
| Depreciation, | 514 41 | |
| Balance June 30, 1893, | 1,727 08 | |
| | <u>\$2,481 14</u> | <u>\$2,481 14</u> |

COTTAGE CITY GAS AND ELECTRIC COMPANY.

ASSETS.

| | | |
|---|---|-------------|
| Real estate (gas), | | |
| Machinery and manufacturing appliances (gas), | } | |
| Street mains (gas), | | |
| Meters (gas), | | \$21,992 50 |
| Due for gas, | | 364 48 |
| Gas coal on hand, | | 72 00 |
| Enrichers on hand, | | 60 00 |
| Other gas materials on hand, | | 301 32 |
| Stoves on hand, | | 237 09 |
| Gas fixtures on hand, | | 219 75 |
| Real estate (electric), | } | |
| Steam plant (electric), | | |
| Electric plant, | | 9,082 42 |
| Lines, meters, lamps and globes (electric), | | |
| Due for electric light and power, | | 170 00 |
| Oil and waste on hand, | | 3 00 |
| Incandescent lamps on hand, | | 35 50 |
| Other electric materials on hand, | | 49 66 |
| Sundry accounts due the company, | | 65 33 |
| Office furniture, | | 43 50 |
| Cash on hand, | | 121 64 |
| Total assets, as per books of the company, | | \$32,818 79 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$25,000 00 |
| Notes payable, | 2,000 00 |
| Total liabilities, as per books of the company, | \$27,000 00 |
| Profit and loss balance, | 5,818 79 |
| | \$32,818 79 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Operating expenses, { gas, | \$3,458 69 | |
| { electric, | 1,152 23 | |
| Income from sale of gas, | | \$4,060 99 |
| other sources, gas, | | 219 56 |
| sale of electric light and power, | | 2,225 00 |
| Balance to profit and loss, { gas, | 811 86 | |
| { electric, | 1,072 77 | |
| | \$6,495 55 | \$6,495 56 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$4,056 16 |
| Balance of gas manufacturing account, | | 811 86 |
| Balance of electric manufacturing account, | | 1,072 77 |
| Interest paid, | \$122 00 | |
| Balance June 30, 1893, | 5,818 79 | |
| | \$5,940 79 | \$5,940 79 |

DANVERS GAS LIGHT COMPANY.

ASSETS.

| | | |
|---|----------|----|
| Real estate, | | |
| Machinery and manufacturing appliances, } | \$21,782 | 95 |
| Street mains, | | |
| Meters, | 462 | 08 |
| Due for gas, | 312 | 60 |
| Gas coal on hand, | 266 | 75 |
| Coke on hand, | 10 | 50 |
| Tar on hand, | 90 | 00 |
| Stoves on hand, | 10 | 00 |
| Gas fixtures on hand, | 7 | 50 |
| Cash on hand, | 876 | 60 |
| Notes receivable, | 200 | 00 |

Total assets, as per books of the company, \$24,018 98

LIABILITIES.

| | | |
|--------------------------|--------|----|
| Capital stock, | 20,000 | 00 |
| Notes payable, | 1,000 | 00 |
| Unpaid bills, | 47 | 47 |

Total liabilities, as per books of the company, \$21,047 47

Profit and loss balance, 2,971 51

\$24,018 98

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$4,085 52 | |
| Income from sale of gas, | | 5,540 88 |
| residuals, | | 223 79 |
| other sources, | | 18 00 |
| Balance to profit and loss, | 1,697 15 | |
| | \$5,782 67 | \$5,782 67 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Balance June 30, 1892, | | \$2,159 42 |
| Balance of gas manufacturing account, | | 1,697 15 |
| Other items of income, | | 191 00 |
| Dividends declared, | \$400 00 | |
| Interest paid, | 131 35 | |
| Depreciation, | 544 71 | |
| Balance June 30, 1893, | 2,971 51 | |
| | \$4,047 57 | \$4,047 57 |

DEDHAM ELECTRIC COMPANY.

ASSETS.

| | | |
|--|----------|----|
| Real estate, | \$13,768 | 68 |
| Steam plant, | 15,162 | 76 |
| Electric plant, | 11,849 | 23 |
| Lines, meters, lamps and globes, | 64,916 | 68 |

| | |
|---|---------------------|
| Patent rights, | \$5,741 78 |
| Due for electric light and power, | 2,094 48 |
| Fuel on hand, | 75 45 |
| Carbons on hand, | 48 00 |
| Oil and waste on hand, | 26 75 |
| Incandescent lamps on hand, | 848 80 |
| Globes on hand, | 21 86 |
| Office furniture, | 16 00 |
| Other electric materials on hand, | 437 51 |
| Horses, wagons, etc., | 454 50 |
| Sundry accounts due the company, | 533 80 |
| Insurance, | 325 68 |
| Advanced interest, | 425 35 |
| Cash on hand, | 193 16 |
| Notes receivable, | 1,207 60 |
| Total assets, as per books of the company, | \$118,147 91 |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$60,000 00 |
| Notes payable, | 52,546 63 |
| Unpaid bills, | 2,170 25 |
| Interest due but not paid, | 157 04 |

| | |
|--|---------------------|
| Total liabilities, as per books of the company, | \$114,873 92 |
| Profit and loss balance, | 3,273 99 |

\$118,147 91

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$7,947 97 | |
| Income from sale of electric light and power, | | \$13,753 08 |
| Income from other sources, | | 28 50 |
| Balance to profit and loss, | 5,833 61 | |
| | \$13,781 58 | \$13,781 58 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,176 43 |
| Balance of electric manufacturing account, | | 5,833 61 |
| Guarantee fund, | | 1,753 60 |
| Other items of income, | | 309 04 |
| Dividends declared, | \$3,600 00 | |
| Interest paid, | 2,198 69 | |
| Balance June 30, 1893, | 3,273 99 | |
| | \$9,072 68 | \$9,072 68 |

DEDHAM AND HYDE PARK GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$7,704 12 |
| Machinery and manufacturing appliances, | 11,866 22 |
| Street mains, | 22,193 97 |
| Meters, | 1,422 46 |
| Due for gas, | 1,055 85 |
| Gas coal on hand, | 781 87 |

| | |
|--|----------|
| Coke on hand, | \$78 78 |
| Tar on hand, | 501 00 |
| Stoves on hand, | |
| Gas engines and fixtures, | 2,243 96 |
| Horses, wagons, etc., | 331 68 |
| Sundry accounts due the company, | 35 40 |
| Office furniture, | 160 42 |
| Cash on hand, | 1,934 12 |
| Investments, | 480 00 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$50,789 85 |
| Profit and loss balance, | 57,863 11 |

\$108,652 96**LIABILITIES.**

| | |
|--------------------------------------|--------------|
| Capital stock, | \$100,000 00 |
| Bonds issued, | 8,500 00 |
| Unpaid bills, | 25 46 |
| Interest due but not paid, | 127 50 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$108,652 96 |
|---|--------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$10,971 85 | |
| Income from sale of, | | \$12,087 75 |
| residuals, | | 1,063 29 |
| other sources, | | 161 95 |
| Balance to profit and loss, | 2,341 14 | |
| | \$13,312 99 | \$13,312 99 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | \$68,840 52 | |
| Balance of gas manufacturing account, | | \$2,341 14 |
| Rents, | | 84 00 |
| Interest paid, | 572 54 | |
| Depreciation, | 875 19 | |
| Balance June 30, 1893, | | 57,863 11 |
| | \$60,288 25 | \$60,288 25 |

DORCHESTER GAS LIGHT COMPANY.**ASSETS.**

| | | |
|--|---|---------------------|
| Real estate, | } | \$540,358 94 |
| Machinery and manufacturing appliances, | | |
| Street mains, | | |
| Meters, | | 20,009 01 |
| Due for gas, | | 14,294 84 |
| Gas on hand, | | 79 83 |
| Enrichers on hand, | | 2 97 |
| Purifying materials on hand, | | 298 85 |
| Other gas materials on hand, | | 3,394 76 |
| Gas fixtures on hand, | | 144 63 |
| Sundry accounts due the company, | | 941 93 |
| Cash on hand, | | 4,598 68 |
| Notes receivable, | | 5,417 00 |
| Total assets, as per books of the company, | | \$589,541 44 |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$400,000 00 |
| Unpaid bills, | 13,070 21 |
| Deposits, | 872 05 |
| Total liabilities, as per books of the company, | \$413,942 26 |
| Profit and loss balance, | 175,599 18 |
| | <u>\$589,541 44</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Operating expenses, | \$80,954 97 | |
| Income from sale of gas, | | \$125,390 53 |
| Income from other sources, | | 41 00 |
| Balance to profit and loss, | 44,476 56 | |
| | <u>\$125,431 53</u> | <u>\$125,431 53</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$161,937 70 |
| Balance of gas manufacturing account, | | 44,476 56 |
| Interest received, | | 138 04 |
| Rents, | | 1,046 88 |
| Dividends declared, | \$32,000 00 | |
| Balance June 30, 1893, | 175,599 18 | |
| | <u>\$207,599 18</u> | <u>\$207,599 18</u> |

EAST BOSTON GAS LIGHT COMPANY.

ASSETS.

| | | | |
|--|---|--|---------------------|
| Real estate, | } | | |
| Machinery and manufacturing appliances, | | | |
| Street mains, | | | |
| Meters, | | | \$229,037 00 |
| Due for gas, | | | 6,069 64 |
| Gas coal on hand, | | | 2,811 42 |
| Coke on hand, | | | 45 00 |
| Purifying materials on hand, | | | 126 48 |
| Other gas materials on hand, | | | 998 00 |
| Stoves on hand, | | | 110 57 |
| Gas fixtures on hand, | | | 1,498 49 |
| Horses, wagons, etc., | | | 328 50 |
| Sundry accounts due the company, | | | 511 32 |
| Cash on hand, | | | 25,620 15 |
| Investments, | | | 40,450 00 |
| Total assets, as per books of the company, | | | <u>\$307,606 57</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$220,000 00 |
| Unpaid bills, | 2,508 57 |
| Deposits, | 684 87 |
| Total liabilities, as per books of the company, | \$223,193 44 |
| Profit and loss balance, | 84,413 13 |
| | <u>\$307,606 57</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$55,518 12 | |
| Income from sale of gas, | | \$70,466 75 |
| residuals, | | 8,995 91 |
| other sources, | | 206 51 |
| Balance to profit and loss, | 24,151 05 | |
| | <u>\$79,669 17</u> | <u>\$79,669 17</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$81,231 00 |
| Balance of gas manufacturing account, | | 24,151 05 |
| Interest received, | | 3,064 68 |
| Jobbing account, | | 411 53 |
| Other items of income, | | 16 66 |
| Dividends declared, | \$22,000 00 | |
| Depreciation, | 2,451 79 | |
| Balance June 30, 1893, | 84,413 13 | |
| | <u>\$108,864 92</u> | <u>\$108,864 92</u> |

EASTHAMPTON GAS COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate (gas), | \$9,500 00 |
| Machinery and manufacturing appliances (gas), | 10,500 00 |
| Street mains (gas), | 8,000 00 |
| Meters (gas), | 500 00 |
| Due for gas, | 611 00 |
| Gas coal on hand, | 175 00 |
| Coke on hand, | 75 00 |
| Tar on hand, | 325 00 |
| Enrichers on hand, | 240 00 |
| Purifying materials on hand, | 12 00 |
| Other gas materials on hand, | 50 00 |
| Gas fixtures on hand, | 2,286 71 |
| Real estate (electric), | 2,589 01 |
| Steam plant (electric), | 5,350 00 |
| Electric plant, | 536 25 |
| Lines, meters, lamps and globes (electric), | 40 00 |
| Patent rights, | 36 00 |
| Due for electric light and power, | 40 00 |
| Other electric materials on hand, | 20 00 |
| Cash on hand, | 395 26 |

Total assets, as per books of the company, \$41,281 23

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$30,000 00 |
| Notes payable, | 5,000 00 |
| Total liabilities, as per books of the company, | \$35,000 00 |
| Profit and loss balance, | 6,281 23 |
| | <u>\$41,281 23</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Operating expenses, { gas, | \$5,872 60 | |
| { electric, | 1,969 12 | |
| Income from sale of gas, | | \$8,568 51 |
| residuals, | | 468 76 |
| other sources, gas, | | 7 50 |
| sale of electric light and power, | | 2,103 76 |
| other sources, electric, | | 50 00 |
| Balance to profit and loss, { gas, | 3,172 17 | |
| { electric, | 194 64 | |
| | <hr/> | <hr/> |
| | \$11,198 53 | \$11,198 53 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$5,122 75 |
| Balance of gas manufacturing account, | | 3,172 17 |
| Balance of electric manufacturing account, | | 194 64 |
| Dividends declared, | \$1,800 00 | |
| Interest paid, | 408 33 | |
| Balance June 30, 1893, | 6,281 23 | |
| | <hr/> | <hr/> |
| | \$8,439 56 | \$8,489 56 |

EDISON ELECTRIC ILLUMINATING COMPANY OF BOSTON.

ASSETS.

| | | | |
|--|---|--|----------------|
| Real estate, | } | | |
| Steam plant, | | | |
| Electric plant, | | | |
| Lines, meters, lamps and globes, | | | |
| Patent rights, | | | |
| Due for electric light and power, | | | 62,638 02 |
| Carbons on hand, | } | | |
| Oil and waste on hand, | | | |
| Incandescent lamps on hand, | | | |
| Globes on hand, | | | |
| Other electric materials on hand, | | | 130,125 18 |
| Motors on hand, | | | |
| Electric fixtures on hand, | | | |
| Horses, wagons, etc., | | | |
| Sundry accounts due the company, | | | 35,062 97 |
| Cash on hand, | | | 69,397 47 |
| Notes receivable, | | | 3,105 11 |
| Investments, real estate, | | | 225,912 05 |
| | | | <hr/> |
| Total assets, as per books of the company, | | | \$3,300,654 46 |

LIABILITIES.

| | |
|--------------------------------------|----------------|
| Capital stock, | \$2,070,800 00 |
| Bonds issued, | 780,600 00 |
| Notes payable, | 299,000 00 |
| Unpaid bills, | 1,629 29 |
| Deposits, | 845 09 |
| Suspense accounts, | 12,102 27 |
| Interest due but not paid, | 6,145 00 |

| | |
|---|-------------|
| Reserved fund, | \$24,000 00 |
| Depreciation fund, | 60,000 00 |
| Amounts due from the company, not included above, | 19,157 42 |

| | |
|---|----------------|
| Total liabilities, as per books of the company, | \$3,274,179 07 |
| Profit and loss balance, | 26,475 39 |
| | <hr/> |
| | \$3,300,654 46 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Operating expenses, | \$329,717 44 | |
| Income from sale of electric light and power, | | \$567,995 99 |
| other sources, electric, | | 392 63 |
| Balance to profit and loss, | 238,671 18 | |
| | <hr/> | <hr/> |
| | \$568,388 62 | \$568,388 62 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Balance June 30, 1892, | | \$52,413 47 |
| Balance of electric manufacturing account, | | 238,671 18 |
| Interest received, | | 3,583 23 |
| Sale of supplies, | | 4,248 60 |
| Steam sales, | | 4,277 02 |
| Dividends declared, | \$149,298 00 | |
| Interest paid, | 38,420 00 | |
| Depreciation, | 65,000 00 | |
| Depreciation fund, | 24,000 00 | |
| Balance June 30, 1893, | 26,475 39 | |
| | <hr/> | <hr/> |
| | \$303,193 39 | \$303,193 39 |

EDISON ELECTRIC ILLUMINATING COMPANY OF BROCKTON.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$52,102 69 |
| Steam plant, | 36,778 19 |
| Electric plant, | 78,603 13 |
| Lines, meters, lamps and globes, | 67,632 81 |
| Patent rights, | 19,000 00 |
| Incandescent lamps on hand, | 274 43 |
| Electric materials on hand, | 2,543 20 |
| Motors on hand, | 272 40 |
| Horses, wagons, tools, etc., | 9,034 48 |
| Sundry accounts due the company, | 8,378 96 |
| Interest and insurance prepaid, | 535 90 |
| Cash on hand, | 439 67 |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$275,595 76 |
|--|--------------|

LIABILITIES.

| | |
|------------------------------|--------------|
| Capital stock, | \$100,000 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 44,750 00 |
| Unpaid bills, | 2,790 95 |
| Interest accrued, | 1,000 00 |
| Depreciation fund, | 27,054 81 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$275,595 76 |
|---|--------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$41,550 01 | |
| Income from sale of electric light and power, | | \$62,461 48 |
| Balance to profit and loss, | 20,911 47 | |
| | <u>\$62,461 48</u> | <u>\$62,461 48</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance of electric manufacturing account, | | \$20,911 47 |
| Other items of income, | | 185 59 |
| Dividends declared, | \$6,000 00 | |
| Interest paid, | 8,280 00 | |
| Material and fixture accounts, | 456 53 | |
| Depreciation fund, | 6,235 00 | |
| Other items, | 125 53 | |
| | <u>\$21,097 06</u> | <u>\$21,097 06</u> |

EDISON ELECTRIC ILLUMINATING COMPANY OF FALL RIVER.

ASSETS.

| | | |
|--|--|---------------------|
| Real estate, | | |
| Steam plant, } | | \$77,188 89 |
| Electric plant, } | | |
| Lines, meters, lamps and globes, | | 43,967 90 |
| Patent rights, | | 10,000 00 |
| Due for electric light and power, | | 1,082 14 |
| Other electric materials on hand, | | 6,439 42 |
| Motors on hand, | | 9,623 01 |
| Sundry accounts due the company, | | 3,864 80 |
| Cash on hand, | | 919 76 |
| Total assets, as per books of the company, | | <u>\$153,085 92</u> |

LIABILITIES.

| | | |
|---|--|---------------------|
| Capital stock, | | \$90,000 00 |
| Notes payable, | | 43,500 00 |
| Unpaid bills, | | 8,656 22 |
| Total liabilities, as per books of the company, | | <u>\$142,156 22</u> |
| Profit and loss balance, | | 10,929 70 |
| | | <u>\$153,085 92</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$30,788 64 | |
| Income from sale of electric light and power, | | \$46,117 44 |
| Income from other sources, electric, | | 1,336 00 |
| Balance to profit and loss, | 16,664 80 | |
| | <u>\$47,453 44</u> | <u>\$47,453 44</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$3,460 79 |
| Balance of electric manufacturing account, | | 16,664 80 |
| Dividends declared, | \$7,200 00 | |
| Interest paid, | 1,117 22 | |
| Wiring account, | 878 67 | |
| Balance June 30, 1893, | 10,929 70 | |
| | <hr/> | <hr/> |
| | \$20,125 59 | \$20,125 59 |

ELECTRIC LIGHT AND PATENT FLOORING COMPANY OF AMESBURY.

(See AMESBURY ELECTRIC LIGHT, HEAT AND POWER COMPANY.)

ELECTRIC LIGHT AND POWER COMPANY OF ABINGTON AND
ROCKLAND.

(See ABINGTON AND ROCKLAND.)

ELIOT FALLS ELECTRIC LIGHT COMPANY.

(From Feb. 1, 1893.)

ASSETS.

| | |
|---|-------------|
| Electric plant, | \$83,259 60 |
| Due for electric light and power, | 188 00 |
| Cash on hand, | 1,337 41 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$84,785 01 |
|--|-------------|

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$81,800 00 |
| Notes payable, | 1,580 00 |
| Unpaid bills, | 1,338 26 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$84,718 26 |
| Profit and loss balance, | 66 75 |

\$84,785 01

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$1,102 46 | |
| Sale of electric light and power, | | \$1,172 04 |
| Balance to profit and loss, | 69 58 | |
| | <hr/> | <hr/> |
| | \$1,172 04 | \$1,172 04 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|---------|---------|
| Balance of electric manufacturing account, | | \$69 58 |
| Interest paid, | \$2 83 | |
| Balance June 30, 1893, | 66 75 | |
| | <hr/> | <hr/> |
| | \$69 58 | \$69 58 |

FALL RIVER ELECTRIC LIGHT COMPANY.

| ASSETS. | |
|--|--------------|
| Real estate (electric), | \$26,800 00 |
| Steam plant, | 38,066 04 |
| Electric plant, | 48,244 12 |
| Lines, meters, lamps and globes, | 58,671 65 |
| Patent rights, | 8,000 00 |
| Due for electric light and power, | 6,619 41 |
| Cash on hand, | 13,969 29 |
| Total assets, as per books of the company, | \$200,370 51 |

| LIABILITIES. | |
|---|--------------|
| Capital stock, | \$160,733 34 |
| Notes payable, | 10,500 00 |
| Unpaid bills, | 1,200 00 |
| Reserved fund, | 19,500 00 |
| Total liabilities, as per books of the company, | \$191,933 34 |
| Profit and loss balance, | 8,437 17 |
| | \$200,370 51 |

| MANUFACTURING ACCOUNT. | |
|---|-------------|
| | Dr. Cr. |
| Operating expenses, | \$43,758 00 |
| Income from sale of electric light and power, | \$67,870 84 |
| Balance to profit and loss, | 24,112 84 |
| | \$67,870 84 |
| | \$67,870 84 |

| PROFIT AND LOSS ACCOUNT. | |
|--|-------------|
| | Dr. Cr. |
| Balance June 30, 1892, | \$4,811 87 |
| Balance of electric manufacturing account, | 24,112 84 |
| Patent rights previously charged off, | 8,000 00 |
| Dividends declared, | \$7,200 00 |
| Interest paid, | 1,787 54 |
| Reserve fund, | 19,500 00 |
| Balance June 30, 1893, | 8,437 17 |
| | \$36,924 71 |
| | \$36,924 71 |

FALL RIVER GAS WORKS COMPANY.

| ASSETS. | |
|---|--------------|
| Real estate, | \$135,169 97 |
| Machinery and manufacturing appliances, | 69,873 09 |
| Street mains and services, | 104,406 88 |
| Meters, | 22,170 49 |
| Due for gas, | 3,979 70 |
| Gas coal on hand, | 1,567 24 |
| Tar on hand, | 1,326 75 |
| Oil on hand, | 652 69 |
| Purifying materials on hand, | 19 65 |
| Other materials on hand, | 3,688 13 |
| Stoves on hand, | 2,260 00 |
| Gas fixtures on hand, | 440 90 |
| New construction, | 2,510 62 |

| | |
|--|-----------|
| Gas engines, | \$871 60 |
| Fuel experiments, | 12 30 |
| Tools, wagons, etc., | 86 40 |
| Sundry accounts due the company, | 985 70 |
| Office furniture, | 434 21 |
| Cash on hand, | 37,919 21 |

Total assets, as per books of the company, \$388,375 43

LIABILITIES.

| | |
|--------------------------|--------------|
| Capital stock, | \$288,000 00 |
| Unpaid bills, | 7,235 28 |
| Deposits, | 287 00 |

Total liabilities, as per books of the company, \$295,522 28

| | |
|------------------------------------|---------------------|
| Profit and loss balance, | 92,853 15 |
| | <u>\$388,375 43</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$38,067 07 | |
| Income from sale of gas, | | \$80,038 47 |
| residuals, | | 182 29 |
| other sources, | | 184 80 |
| Balance to profit and loss, | 42,338 49 | |
| | <u>\$80,405 56</u> | <u>\$80,405 56</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$79,446 57 |
| Balance of gas manufacturing account, | | 42,338 49 |
| Rents, | | 767 70 |
| Other items of income, | | 9 55 |
| Dividends declared, | \$28,800 00 | |
| Interest paid, | 1 68 | |
| Depreciation, | 160 94 | |
| Old bills not previously reported, | 746 54 | |
| Balance June 30, 1893, | 92,853 15 | |
| | <u>\$122,562 31</u> | <u>\$122,562 31</u> |

FITCHBURG GAS COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate (gas), | \$8,500 00 |
| Machinery and manufacturing appliances (gas), | 17,659 87 |
| Street mains (gas), | 15,000 00 |
| Meters (gas), | 5,000 00 |
| Due for gas, | 3,174 05 |
| Gas coal on hand, | 500 00 |
| Enrichers on hand, | 100 00 |
| Water works, | 2,163 33 |
| Real estate (electric), | 22,705 85 |
| Steam plant (electric), | 8,000 00 |
| Electric plant, | 34,000 00 |
| Lines, meters, lamps and globes (electric), | 39,231 07 |
| Due for electric light and power, | 711 77 |
| Fuel on hand (electric), | 200 00 |

| | |
|--|------------|
| Sundry accounts due the company, | \$3,501 36 |
| Cash on hand, | 2,567 50 |
| Notes receivable, | 185 20 |

Total assets, as per books of the company, \$163,200 00

LIABILITIES.

| | |
|--------------------------|--------------|
| Capital stock, | \$150,000 00 |
| Notes payable, | 13,200 00 |

Total liabilities, as per books of the company, \$163,200 00

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Operating expenses, { gas, | \$26,151 77 | |
| { electric, | 22,731 19 | |
| Income from sale of gas, | | \$35,803 40 |
| residuals, | | 4,766 29 |
| other sources, gas, | | 143 37 |
| sale of electric light and power, | | 31,502 99 |
| Balance to profit and loss, { gas, | 14,561 29 | |
| { electric, | 8,771 80 | |
| | \$72,216 05 | \$72,216 05 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance of gas manufacturing account, | | \$14,561 29 |
| Balance of electric manufacturing account, | | 8,771 80 |
| Jobbing account, | | 867 20 |
| Water rents, | | 284 50 |
| Dividends declared, | \$15,000 00 | |
| Interest paid, | 1,171 25 | |
| Depreciation, | 8,313 54 | |
| | \$24,484 79 | \$24,484 79 |

FRAMINGHAM ELECTRIC COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$12,902 87 |
| Steam plant, | 24,873 03 |
| Electric plant, | 41,168 20 |
| Lines, meters, lamps and globes, | 49,793 50 |
| Inside wiring, | 21,348 27 |
| Franchise, | 3,062 35 |
| Due for electric light and power, | 3,558 40 |
| Fuel on hand, | 1,079 27 |
| Carbons on hand, | |
| Oil and waste on hand, | |
| Incandescent lamps on hand, | |
| Globes on hand, | 484 06 |
| Other electric materials on hand, | |
| Sundry accounts due the company, | 168 00 |
| Office furniture, | 99 20 |
| Cash on hand, | |

Total assets, as per books of the company, \$158,537 15

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$80,000 00 |
| Bonds issued, | 50,000 00 |
| Notes payable, | 135 00 |
| Unpaid bills, | 22,117 62 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$152,252 62 |
| Profit and loss balance, | 6,284 53 |
| <hr/> | |
| | \$158,537 15 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$15,026 07 | |
| Income from sale of electric light and power, | | \$19,371 03 |
| other sources, | | 199 92 |
| Balance to profit and loss, | 4,544 88 | |
| <hr/> | | |
| | \$19,570 95 | \$19,570 95 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$4,747 90 |
| Balance of electric manufacturing account, | | 4,544 88 |
| Interest paid, | \$3,008 25 | |
| Balance June 30, 1893, | 6,284 53 | |
| <hr/> | | |
| | \$9,292 78 | \$9,292 78 |

FRAMINGHAM GAS, FUEL AND POWER COMPANY.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$31,948 64 |
| Machinery and manufacturing appliances, | 31,140 25 |
| Street mains, | 27,888 30 |
| Meters, | 2,826 43 |
| Due for gas, | 737 55 |
| Gas coal on hand, | 224 68 |
| Purifying materials on hand, | 135 00 |
| Other gas materials on hand, | 971 54 |
| Jobbing materials on hand, | 355 18 |
| Stoves on hand, | 2,460 44 |
| Gas fixtures on hand, } | |
| Tools, | 755 28 |
| Horses, wagons, etc., | 216 75 |
| Sundry accounts due the company, | 2,293 86 |
| Office furniture, | 1,044 71 |
| Cash on hand, | 200 81 |
| Patent rights and franchise, | 40,000 00 |
| <hr/> | |
| Total assets, as per books of the company, | \$143,199 42 |
| Profit and loss balance, | 30,590 30 |
| <hr/> | |
| | \$173,789 72 |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$75,000 00 |
| Bonds issued, | 75,000 00 |
| Notes payable, | 12,682 32 |
| Unpaid bills, | 1,357 40 |
| Interest due but not paid, | 9,750 00 |

Total liabilities, as per books of the company, \$173,789 72

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$7,120 39 | |
| Income from sale of gas, | | \$5,626 98 |
| other sources, | | 68 00 |
| Balance to profit and loss, | | 1,425 41 |
| | \$7,120 39 | \$7,120 39 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | \$24,394 99 | |
| Balance of gas manufacturing account, | 1,425 41 | |
| Sundry items of income, | | \$272 73 |
| Interest paid, | 4,500 00 | |
| Jobbing account, | 542 63 | |
| Balance June 30, 1893, | | 30,590 30 |
| | \$30,863 03 | \$30,863 03 |

FRANKLIN.

(See UNION ELECTRIC LIGHT COMPANY.)

FRANKLIN ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|-------------|
| Electric plant, | \$11,007 46 |
| Cash on hand, | 774 51 |
| Total assets, as per books of the company, | \$11,781 97 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$10,000 00 |
| Total liabilities, as per books of the company, | \$10,000 00 |
| Profit and loss balance, | 1,781 97 |
| | \$11,781 97 |

MANUFACTURING ACCOUNT

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$2,707 45 | |
| Income from sale of electric light and power, | | \$3,923 44 |
| Balance to profit and loss, | 1,215 99 | |
| | \$3,923 44 | \$3,923 44 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,069 14 |
| Balance of electric manufacturing account, | | 1,215 99 |
| Dividends declared, | \$500 00 | |
| Interest paid, | 3 16 | |
| Balance June 30, 1893, | 1,781 97 | |
| | <u>\$2,285 13</u> | <u>\$2,285 13</u> |

GARDNER ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$6,300 00 |
| Steam plant, | 9,002 75 |
| Electric plant, | 14,474 90 |
| Lines, meters, lamps and globes, | 16,613 83 |
| Due for electric light and power, | 1,173 17 |
| Fuel on hand, | 266 20 |
| Carbons on hand, | 110 00 |
| Oil and waste on hand, | 14 00 |
| Incandescent lamps on hand, | 359 27 |
| Globes on hand, | 10 55 |
| Other electric materials on hand, | 956 21 |
| Sundry accounts due the company, | 206 16 |
| Office furniture, | 38 92 |
| Cash on hand, | 1,124 35 |
| Notes receivable, | 181 45 |
| Total assets, as per books of the company, | <u>\$50,831 76</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$30,000 00 |
| Unpaid bills, | 364 95 |
| Reserved fund, | 15,000 00 |
| Total liabilities, as per books of the company, | <u>\$45,364 95</u> |
| Profit and loss balance, | 5,466 81 |
| | <u>\$50,831 76</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$8,518 58 | |
| Income from sale of electric light and power, | | \$13,479 56 |
| other sources, | | 35 14 |
| Balance to profit and loss, | 4,996 12 | |
| | <u>\$13,514 70</u> | <u>\$13,514 70</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$7,182 11 |
| Balance of electric manufacturing account, | | 4,996 12 |
| Other items of income, | | 865 51 |
| Dividends declared, | \$2,500 00 | |
| Interest paid, | 9 70 | |
| Depreciation, | 4,958 00 | |
| Other items, | 109 23 | |
| Balance June 30, 1893, | 5,466 81 | |
| | <u>\$13,043 74</u> | <u>\$13,043 74</u> |

GARDNER GAS WORKS.

(Mrs. M. L. Ruggles.)

ASSETS.

| | | | |
|--|---|--|--------------------|
| Real estate, | } | | |
| Machinery and manufacturing appliances, | | | |
| Street mains, | | | |
| Meters, | | | \$14,100 00 |
| Stoves on hand, | | | 200 00 |
| Gas fixtures on hand, | | | 40 00 |
| Total assets, as per books of the company, | | | <u>\$14,340 00</u> |

LIABILITIES.

| | |
|---|--------------------|
| Notes payable, | \$12,500 00 |
| Unpaid bills, | 493 00 |
| Total liabilities, as per books of the company, | <u>\$12,993 00</u> |
| Profit and loss balance, | 1,347 00 |
| | <u>\$14,340 00</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$7,677 39 | |
| Income from sale of gas, | | \$7,365 32 |
| Balance to profit and loss, | | 312 07 |
| | <u>\$7,677 39</u> | <u>\$7,677 39</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,711 39 |
| Balance of gas manufacturing account, | \$312 07 | |
| Fixture account, | | 697 68 |
| Interest paid, | 750 00 | |
| Balance June 30, 1893, | 1,347 00 | |
| | <u>\$2,409 07</u> | <u>\$2,409 07</u> |

GLOUCESTER ELECTRIC COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$37,794 80 |
| Steam plant, | 33,267 18 |
| Electric plant, | 31,300 43 |
| Lines, meters, lamps and globes, | 16,192 80 |
| Patent rights, | 5,000 00 |
| Due for electric light and power, | 3,485 40 |
| Fuel on hand, | 1,461 60 |
| Carbons on hand, | 25 00 |
| Oil and waste on hand, | 13 00 |
| Incandescent lamps on hand, | 617 85 |
| Globes on hand, | 75 64 |
| Horses, wagons, etc., | 195 03 |
| Sundry accounts due the company, | 1,754 68 |
| Office furniture, | 87 00 |
| Cash on hand, | 1,007 77 |
| Total assets, as per books of the company, | <u>\$182,278 18</u> |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$50,000 00 |
| Bonds issued, | 50,000 00 |
| Notes payable, | 12,767 77 |
| Unpaid bills, | 8,367 66 |
| Interest due but not paid, | 750 00 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$121,885 43 |
| Profit and loss balance, | 10,392 75 |

\$132,278 18

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|---|-------------------|-------------------|
| Operating expenses, | \$15,430 60 | |
| Income from sale of electric light and power, | | \$21,680 84 |
| Balance to profit and loss, | 6,250 24 | |
| | <hr/> \$21,680 84 | <hr/> \$21,680 84 |

PROFIT AND LOSS ACCOUNT.

| | DR. | CR. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$9,012 71 |
| Balance of electric manufacturing account, | | 6,250 24 |
| Rents, | | 127 60 |
| Dividends declared, | \$1,500 00 | |
| Interest paid, | 3,497 70 | |
| Balance June 30, 1893, | 10,392 75 | |
| | <hr/> \$15,390 45 | <hr/> \$15,390 45 |

GLOUCESTER GAS LIGHT COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$40,000 00 |
| Machinery and manufacturing appliances, | |
| Street mains, | } 46,162 74 |
| Meters, | |
| Due for gas, | 4,787 85 |
| Gas coal on hand, | 279 00 |
| Coke on hand, | 222 66 |
| Tar on hand, | 986 40 |
| Other gas materials on hand, | 1,000 00 |
| Stoves on hand, | 75 00 |
| Gas fixtures and fitting tools, | 375 00 |
| Gas on hand, | 114 40 |
| Horses, wagons, etc., | 400 00 |
| Sundry accounts due the company, | 4,064 46 |
| Cash on hand, | 337 64 |
| Notes receivable, | 1,009 77 |
| Loan account, | 1,074 21 |

Total assets, as per books of the company, \$100,889 03

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$80,000 00 |
| Total liabilities, as per books of the company, | \$80,000 00 |
| Profit and loss balance, | 20,889 03 |
| | <u>\$100,889 03</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$21,004 73 | |
| Income from sale of gas, | | \$27,768 32 |
| residuals, | | 3,705 71 |
| other sources, | | 9 60 |
| Balance to profit and loss, | 10,478 90 | |
| | <u>\$31,483 63</u> | <u>\$31,483 63</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$17,226 56 |
| Balance of gas manufacturing account, | | 10,478 90 |
| Interest received, | | 70 68 |
| Rents, | | 2,440 75 |
| Gas-fitting account, | | 922 70 |
| Other items, | | 949 44 |
| Dividends declared, | \$11,200 00 | |
| Balance June 30, 1893, | 20,889 03 | |
| | <u>\$32,089 03</u> | <u>\$32,089 03</u> |

GREAT BARRINGTON ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$1,560 00 |
| Steam plant, | 5,803 26 |
| Electric plant, | 17,063 10 |
| Lines, meters, lamps and globes, | 10,006 62 |
| Due for electric light, | 2,640 73 |
| Fuel on hand, | 45 00 |
| Carbons on hand, | 24 28 |
| Oil and waste on hand, | 62 75 |
| Incandescent lamps on hand, | 334 05 |
| Globes on hand, | 12 30 |
| Other electric materials on hand, | 432 11 |
| Meters on hand, | 370 50 |
| Electric fixtures on hand, | 103 38 |
| Sundry accounts due the company, | 237 17 |
| Office furniture, | 60 00 |
| Cash on hand, | 93 33 |
| Insurance advanced, | 225 00 |
| Investments, | 1,155 06 |
| Total assets, as per books of the company, | <u>\$40,228 64</u> |
| Profit and loss balance, | 202 15 |
| | <u>\$40,430 79</u> |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$23,800 00 |
| Bonds issued, | 14,000 00 |
| Notes payable, | 2,398 29 |
| Interest due but not paid, | 232 50 |

Total liabilities, as per books of the company, \$40,430 79

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$7,188 05 | |
| Income from sale of electric light and power, | | \$7,574 26 |
| Balance to profit and loss, | 386 21 | |
| | <u>\$7,574 26</u> | <u>\$7,574 26</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$439 84 |
| Balance of electric manufacturing account, | | 386 21 |
| Other items of income, | | 69 91 |
| Bond commissions, | \$420 00 | |
| Interest paid, | 678 11 | |
| Balance June 30, 1893, | | 202 15 |
| | <u>\$1,098 11</u> | <u>\$1,098 11</u> |

GREENFIELD ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$4,000 00 |
| Steam plant, | 10,030 07 |
| Electric plant, | 28,071 46 |
| Construction account, | 427 88 |
| Due for electric light and power, | 981 30 |
| Fuel on hand (electric), | 484 00 |
| Carbons on hand, | 38 00 |
| Oil and waste on hand, | 9 00 |
| Incandescent lamps on hand, | 180 74 |
| Globes on hand, | 803 16 |
| Sundry accounts due the company, | 385 93 |
| Cash on hand, | 58 28 |
| Notes receivable, | 100 00 |

Total assets, as per books of the company, \$45,569 82

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 9,000 00 |
| Notes payable, | 1,500 00 |
| Unpaid bills, | 1,127 04 |
| Amounts due from the company, not included above, | 498 20 |

Total liabilities, as per books of the company, \$42,125 24
 Profit and loss balance, 3,444 58
\$45,569 82

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$9,341 87 | |
| Income from sale of electric light and power, | | \$11,553 35 |
| other sources, | | 98 75 |
| Balance to profit and loss, | 2,310 23 | |
| | <u>\$11,652 10</u> | <u>\$11,652 10</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,728 50 |
| Balance of electric manufacturing account, | | 2,310 23 |
| Interest paid, | \$594 15 | |
| Balance June 30, 1893, | 3,444 58 | |
| | <u>\$4,038 73</u> | <u>\$4,038 73</u> |

GREENFIELD GAS LIGHT COMPANY.

ASSETS.

| | | |
|--|--|--------------------|
| Real estate, | | |
| Machinery and manufacturing appliances, } | | \$44,608 47 |
| Street mains, | | 4,516 12 |
| Meters, | | 1,629 41 |
| Due for gas, | | 958 70 |
| Gas coal on hand, | | 30 00 |
| Coke on hand, | | 20 00 |
| Tar on hand, | | 175 00 |
| Enrichers on hand, | | 96 00 |
| Purifying materials on hand, | | 21 25 |
| Other gas materials on hand, | | 131 74 |
| Stoves on hand, | | |
| Gas fixtures on hand, } | | 199 00 |
| Sundry accounts due the company, | | 170 42 |
| Cash on hand, | | 1,619 59 |
| Total assets, as per books of the company, | | <u>\$54,175 70</u> |

LIABILITIES.

| | | |
|---|--|--------------------|
| Capital stock, | | \$50,000 00 |
| Notes payable, | | 1,000 00 |
| Amounts due from the company, not included above, | | 428 56 |
| Total liabilities, as per books of the company, | | <u>\$51,428 56</u> |
| Profit and loss balance, | | 2,747 14 |
| | | <u>\$54,175 70</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$6,187 80 | |
| Income from sale of gas, | | \$8,319 37 |
| residuals, | | 427 85 |
| Balance to profit and loss, | 2,559 92 | |
| | <u>\$8,747 22</u> | <u>\$8,747 22</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,765 83 |
| Balance of gas manufacturing account, | | 2,559 92 |
| Other items of income, | | 41 39 |
| Dividends declared, | \$1,560 00 | |
| Interest paid, | 50 00 | |
| Balance June 30, 1893, | 2,747 14 | |
| | <u>\$4,357 14</u> | <u>\$4,357 14</u> |

HAVERHILL ELECTRIC COMPANY.

ASSETS.

| | | |
|--|---|---------------------|
| Real estate, | } | |
| Steam plant, | | |
| Electric plant, | | \$226,310 39 |
| Lines, meters, lamps and globes, | | |
| Due for electric light and power, | | 5,189 07 |
| Fuel on hand, | } | |
| Carbons on hand, | | |
| Oil and waste on hand, | | |
| Incandescent lamps on hand, | | |
| Globes on hand, | } | 3,913 10 |
| Other electric materials on hand, | | |
| Motors on hand, | | |
| Electric fixtures on hand, | | |
| Horses, wagons, etc., | | |
| Sundry accounts due the company, | | 360 00 |
| Cash on hand, | | 1,382 25 |
| Total assets, as per books of the company, | | <u>\$237,154 81</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$127,500 00 |
| Bonds issued, | 42,500 00 |
| Notes payable, | 38,795 18 |
| Unpaid bills, | 4,948 10 |
| Total liabilities, as per books of the company, | <u>\$213,743 28</u> |
| Profit and loss balance, | 23,411 53 |
| | <u>\$237,154 81</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$27,298 99 | |
| Income from sale of electric light and power, | | \$38,329 20 |
| Balance to profit and loss, | 11,030 21 | |
| | <u>\$38,329 20</u> | <u>\$38,329 20</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$21,546 83 |
| Balance of electric manufacturing account, | | 11,030 21 |
| Other items of income, | | 129 67 |
| Dividends declared, | \$7,650 00 | |
| Interest paid, | 1,645 18 | |
| Balance June 30, 1893, | 23,411 53 | |
| | <u>\$32,706 71</u> | <u>\$32,706 71</u> |

HAVERHILL GAS LIGHT COMPANY.

ASSETS.

| | |
|---|---------------------|
| Real estate, | \$25,033 71 |
| Machinery and manufacturing appliances, | 125,015 87 |
| Street mains, | 40,047 78 |
| Meters, | 10,587 12 |
| Due for gas, | 11,652 32 |
| Gas coal on hand, | 3,324 76 |
| Other coal on hand, | 392 00 |
| Coke on hand, | 300 00 |
| Tar on hand, | 1,060 00 |
| Enrichers on hand, | 444 36 |
| Purifying materials on hand, | 350 00 |
| Lungren lamps, | 4,963 04 |
| Sundry accounts due the company, | 526 16 |
| Cash on hand, | 3,265 40 |
| Investments, | 21,646 29 |
| Total assets, as per books of the company, | \$248,598 81 |

LIABILITIES.

| | |
|--|---------------------|
| Capital stock, | \$75,000 00 |
| Notes payable, | 37,500 00 |
| Unpaid bills, | 4,169 04 |
| Total liabilities, as per books of the company, | \$116,669 04 |
| Profit and loss balance, | 131,929 77 |
| | \$248,598 81 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$48,227 59 | |
| Income from sale of gas, | | \$82,789 31 |
| residuals, | | 1,182 71 |
| Balance to profit and loss, | 35,744 43 | |
| | \$83,972 02 | \$83,972 02 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$105,180 03 |
| Balance of gas manufacturing account, | | 35,744 43 |
| Rents, | | 829 58 |
| Dividends declared, | \$7,500 00 | |
| Interest paid, | 2,324 27 | |
| Balance June 30, 1893, | 131,929 77 | |
| | \$141,754 04 | \$141,754 04 |

HOLYOKE WATER POWER COMPANY.

MANUFACTURING ACCOUNT.

Gas Department.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Inventory June 30, 1892, | \$7,524 41 | |
| Extensions, | 4,430 77 | |
| Operating expenses, | 72,342 34 | |
| Income from sale of gas, | | \$83,699 75 |
| residuals, | | 12,414 73 |
| sale of gas stoves, | | 54 10 |
| Inventory June 30, 1893, | | 4,119 78 |
| Balance to profit and loss, | 15,990 84 | |
| | <u>\$100,288 36</u> | <u>\$100,288 36</u> |

HUDSON ELECTRIC LIGHT COMPANY.

ASSETS

| | |
|--|--------------------|
| Steam plant, | \$1,365 77 |
| Electric plant, | 6,622 63 |
| Lines, meters, lamps and globes, | 8,335 17 |
| Due for electric light and power, | 387 11 |
| Cash on hand, | 749 17 |
| Investments, | 5,875 00 |
| Total assets, as per books of the company, | <u>\$23,234 85</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$15,000 00 |
| Notes payable, | 4,500 00 |
| Total liabilities, as per books of the company, | <u>\$19,500 00</u> |
| Profit and loss balance, | 3,734 85 |
| | <u>\$23,234 85</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$3,092 24 | |
| Income from sale of electric light and power, | | \$3,983 98 |
| Balance to profit and loss, | 891 74 | |
| | <u>\$3,983 98</u> | <u>\$3,983 98</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$3,106 29 |
| Balance of electric manufacturing account, | | 891 74 |
| Other items of income, | | 520 00 |
| Interest paid, | \$263 18 | |
| Other items, | 520 00 | |
| Balance June 30, 1893, | 3,734 85 | |
| | <u>\$4,518 03</u> | <u>\$4,518 03</u> |

HULL ELECTRIC LIGHT AND POWER COMPANY.

| ASSETS. | |
|---|--------------|
| Real estate, | \$13,000 00 |
| Steam plant, | 37,371 59 |
| Electric plant, | 19,931 27 |
| Lines, meters, lamps and globes, | 46,331 80 |
| Due for electric light and power, | 982 74 |
| Fuel on hand, | 90 00 |
| Carbons on hand, | 13 92 |
| Oil and waste on hand, | 30 00 |
| Incandescent lamps on hand, | 900 00 |
| Horses, wagons, tools, etc., | 108 94 |
| Sundry accounts due the company, | 5,181 05 |
| Cash on hand, | 10,881 29 |
| <hr/> | |
| Total assets, as per books of the company, | \$134,822 60 |
| Profit and loss balance, | 2,189 35 |
| <hr/> | |
| \$137,011 95 | |
| LIABILITIES. | |
| Capital stock, | \$60,000 00 |
| Bonds issued, | 60,000 00 |
| Notes payable, | 2,526 25 |
| Unpaid bills, | 12,685 70 |
| Interest due but not paid, | 1,800 00 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$137,011 95 |

MANUFACTURING ACCOUNT.

(From Dec. 1, 1892.)

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$3,389 40 | |
| Income from sale of electric light and power, | | \$2,982 74 |
| Income from other sources, | | 19 25 |
| Balance to profit and loss, | | 387 41 |
| | <hr/> | <hr/> |
| | \$3,389 40 | \$3,389 40 |
| PROFIT AND LOSS ACCOUNT. | | |
| | Dr. | Cr. |
| Balance of electric manufacturing account, | \$387 41 | |
| Interest paid, | 1,801 94 | |
| Balance June 30, 1893, | | \$2,189 35 |
| | <hr/> | <hr/> |
| | \$2,189 35 | \$2,189 35 |

HYDE PARK ELECTRIC LIGHT COMPANY.

| ASSETS. | |
|---|-------------|
| Real estate, | \$19,659 96 |
| Steam plant, | 40,186 71 |
| Electric plant, | 34,336 46 |
| Lines, meters, lamps and globes, | 78,591 04 |
| Patent rights, | 20,250 50 |
| Due for electric light and power, | 4,293 32 |
| Fuel on hand, | 31 54 |

| | |
|---|----------|
| Carbons on hand, | \$15 40 |
| Oil and waste on hand, | 32 91 |
| Incandescent lamps on hand, | 1,405 00 |
| Globes on hand, | 54 67 |
| Other materials on hand, | 20 00 |
| Horses, wagons, etc., | 198 00 |
| Sundry accounts due the company, | 566 46 |
| Office furniture, | 60 30 |
| Cash on hand, | 573 93 |
| Notes receivable, | 170 70 |
| Advance payments of insurance and interest, | 1,056 12 |

Total assets, as per books of the company, \$201,453 02

LIABILITIES.

| | |
|--------------------------|--------------|
| Capital stock, | \$100,000 00 |
| Bonds issued, | 60,000 00 |
| Notes payable, | 28,872 19 |
| Unpaid bills, | 5,466 80 |

Total liabilities, as per books of the company, \$194,338 79

Profit and loss balance, 7,114 23

\$201,453 02

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$13,681 68 | |
| Income from sale of electric light and power, | | \$22,812 13 |
| Income from other sources, | | 62 00 |
| Balance to profit and loss, | 9,192 45 | |
| | \$22,874 13 | \$22,874 13 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$5,614 87 |
| Balance of electric manufacturing account, | | 9,192 45 |
| Dividends declared, | \$4,500 00 | |
| Interest paid, | 3,193 09 | |
| Balance June 30, 1893, | 7,114 23 | |
| | \$14,807 32 | \$14,807 32 |

IPSWICH GAS LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$3,700 00 |
| Machinery and manufacturing appliances, | 2,000 00 |
| Street mains, | 5,100 00 |
| Meters, | 1,800 00 |
| Gas coal on hand, | 16 50 |
| Oil on hand, | 180 00 |
| Cash on hand, | 598 27 |

Total assets, as per books of the company, \$13,394 77

Profit and loss balance, 11,541 80

\$24,936 57

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$16,000 00 |
| Bonds issued, | 8,000 00 |
| Notes payable, | 400 00 |
| Unpaid bills, | 536 57 |
| Total liabilities, as per books of the company, | \$24,936 57 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$3,466 73 | |
| Income from sale of gas, | | \$5,282 07 |
| Balance to profit and loss, | 1,815 34 | |
| | \$5,282 07 | \$5,282 07 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | \$12,292 79 | |
| Balance of gas manufacturing account, | | \$1,815 34 |
| Interest paid, | 544 87 | |
| Old debts paid, | 519 48 | |
| Balance June 30, 1893, | | 11,541 80 |
| | \$13,357 14 | \$13,357 14 |

JAMAICA PLAIN GAS LIGHT COMPANY.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$118,000 00 |
| Machinery and manufacturing appliances, | 99,728 72 |
| Street mains, | 100,640 96 |
| Meters, | 2,131 71 |
| Due for gas, | 9,471 71 |
| Gas coal on hand, | 9,612 80 |
| Coke on hand, | 45 00 |
| Tar on hand, | 225 00 |
| Enrichers on hand, | 35 00 |
| Other gas materials on hand, | 1,059 56 |
| Horses, wagons, etc., | 667 00 |
| Sundry accounts due the company, | 1,464 90 |
| Office furniture, | 750 00 |
| Cash on hand, | 853 98 |
| Notes receivable, | 13,000 00 |
| Gas works extension and improvement, | 4,481 16 |
| Total assets, as per books of the company, | \$362,167 49 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$250,000 00 |
| Notes payable, | 20,000 00 |
| Premium account, | 17,775 00 |
| Unpaid bills, | 4,260 83 |
| Deposits, | 767 40 |
| Total liabilities, as per books of the company, | \$292,803 23 |
| Profit and loss balance, | 69,364 26 |
| | \$362,167 49 |

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$61,912 74 | |
| Income from sale of gas, | | \$80,919 10 |
| residuals, | | 11,431 49 |
| Balance to profit and loss, | 30,437 85 | |
| | <u>\$92,350 59</u> | <u>\$92,350 59</u> |

PROFIT AND LOSS ACCOUNT.

| | DR. | CR. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$66,098 00 |
| Balance of gas manufacturing account, | | 30,437 85 |
| Rents, | | 110 00 |
| Other items of income, | | 5 50 |
| Dividends declared, | \$20,000 00 | |
| Interest paid, | 596 83 | |
| Depreciation, | 6,270 77 | |
| Jobbing account, | 419 49 | |
| Balance June 30, 1893, | 69,364 26 | |
| | <u>\$96,651 35</u> | <u>\$96,651 35</u> |

LAWRENCE GAS LIGHT COMPANY.

ASSETS.

| | | | |
|---|---|--|---------------------|
| Real estate (gas), | } | | |
| Machinery and manufacturing appliances (gas), | | | |
| Street mains (gas), | | | |
| Meters (gas), | | | \$511,062 73 |
| Due for gas, | | | 6,744 73 |
| Water gas fuel, | | | 1,929 76 |
| Gas coal on hand, | | | 4,289 80 |
| Coke on hand, | | | 173 56 |
| Tar on hand, | | | 3,748 30 |
| Enrichers on hand, | | | 1,457 63 |
| Purifying materials on hand, | | | 1,539 76 |
| Other gas materials on hand, | | | 8,624 88 |
| Stoves on hand, | | | 818 79 |
| Gas fixtures on hand, | | | 9,163 56 |
| Real estate (electric), | | | 24,048 81 |
| Steam plant (electric), | } | | |
| Electric plant, | | | |
| Lines, meters, lamps and globes (electric), | | | 205,200 04 |
| Due for electric light and power, | | | 5,716 87 |
| Fuel on hand (electric), | | | 775 32 |
| Carbons on hand, | | | 254 10 |
| Oil and waste on hand, | | | 90 14 |
| Incandescent lamps on hand, | | | 1,934 99 |
| Globes on hand, | | | 55 10 |
| Other electric materials on hand, | | | 2,868 87 |
| Motors on hand, | | | 2,390 93 |
| Aqua ammonia, | | | 2,150 78 |
| Sundry accounts due the company, | | | 5,505 81 |
| Office furniture, | | | 3,361 44 |
| Cash on hand, | | | 27,366 90 |
| Investments, | | | 11,430 00 |
| Total assets, as per books of the company, | | | <u>\$842,693 60</u> |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$590,000 00 |
| Bonds issued, | 125,000 00 |
| Notes payable, | 25,000 00 |
| Deposits, | 199 00 |
| Premium account, | 16,600 00 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$756,799 00 |
| Profit and loss balance, | 85,894 60 |
| <hr/> | |
| | \$842,693 60 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$92,057 97 | |
| { electric, | 47,552 04 | |
| Income from sale of gas, | | \$105,174 56 |
| residuals, | | 20,624 52 |
| sale of electric light and power, | | 66,671 44 |
| other sources, electric, | | 2,997 00 |
| Balance to profit and loss, { gas, | 33,741 11 | |
| { electric, | 22,116 40 | |
| <hr/> | | |
| | \$195,467 52 | \$195,467 52 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Balance June 30, 1892, | | \$63,493 18 |
| Balance of gas manufacturing account, | | 33,741 11 |
| Balance of electric manufacturing account, | | 22,116 40 |
| Premium on new stock, | | 10,125 00 |
| Rents, | | 1,242 51 |
| Lamps, sales and jobbing accounts, | | 1,609 78 |
| Old bills collected, | | 183 22 |
| Dividends declared, | \$37,100 00 | |
| Interest paid, | 9,158 60 | |
| Depreciation, | 258 00 | |
| Balance June 30, 1893, | 85,894 60 | |
| <hr/> | | |
| | \$132,411 20 | \$132,411 20 |

LEE ELECTRIC COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate (gas), | \$1,718 88 |
| Machinery and manufacturing appliances (gas), | 2,000 00 |
| Street mains (gas), | 4,121 19 |
| Meters (gas), | 685 85 |
| Real estate (electric), | 6,395 58 |
| Steam plant (electric), | 11,811 37 |
| Water, | 2,122 87 |
| Electric plant, | 13,334 49 |
| Lines, meters, lamps and globes (electric), | 25,197 88 |
| Due for electric light and power, | 1,092 92 |
| Fuel on hand (electric), | 100 00 |
| Carbons on hand, | 6 00 |

| | |
|--|---------|
| Oil and waste on hand, | \$60 15 |
| Incandescent lamps on hand, | 380 65 |
| Globes on hand, | 6 00 |
| Other materials on hand, | 438 65 |
| Horses, wagons, etc., | 195 35 |
| Sundry accounts due the company, | 66 62 |
| Office furniture, | 15 75 |
| Cash on hand, | 288 48 |
| Insurance unexpired, | 107 97 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$70,146 65 |
| Profit and loss balance, | 5,003 91 |

\$75,150 56

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$20,000 00 |
| Bonds issued, | 15,000 00 |
| Notes payable, | 3,177 65 |
| Unpaid bills, | 179 97 |
| Interest due but not paid, | 1,110 00 |
| Amounts due from the company, not included above, | 35,682 94 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$75,150 56 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------------|------------------|
| Operating expenses, | \$6,233 11 | |
| Sale of electric light and power, | | \$5,655 72 |
| Balance to profit and loss, | | 577 39 |
| | <hr/> \$6,233 11 | <hr/> \$6,233 11 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------------|------------------|
| Balance June 30, 1892, | \$2,851 52 | |
| Balance of electric manufacturing account, | 577 39 | |
| Rents, | | \$150 17 |
| Interest paid, | 1,125 03 | |
| Other items, | 600 14 | |
| Balance June 30, 1893, | | 5,003 91 |
| | <hr/> \$5,154 08 | <hr/> \$5,154 08 |

LEICESTER ELECTRIC COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$10,309 59 |
| Steam plant, | 13,317 89 |
| Electric plant, | 6,126 88 |
| Lines, meters, lamps and transformers, | 15,560 82 |
| Water power, | 2,804 25 |
| Due for electric light and power, | 1,426 87 |
| Fuel on hand, | 46 33 |
| Oil and waste on hand, | 35 68 |
| Incandescent lamps on hand, | 245 80 |
| Other materials on hand, | 92 22 |
| Tools on hand, | 183 12 |

| | |
|---|--------------------|
| Sundry accounts due the company, | \$179 18 |
| Cash on hand, | 187 08 |
| Advance insurance and interest, | 114 48 |
| Total assets, as per books of the company, | <u>\$50,620 04</u> |
| Profit and loss balance, | 365 22 |
| | <u>\$50,985 26</u> |
| LIABILITIES. | |
| Capital stock, | \$25,000 00 |
| Bonds issued, | 20,000 00 |
| Notes payable, | 1,969 41 |
| Unpaid bills, | 2,474 18 |
| Interest due but not paid, | 1,541 67 |
| Total liabilities, as per books of the company, | <u>\$50,985 26</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$4,445 25 | |
| Income from sale of electric light and power, | | \$5,351 99 |
| Balance to profit and loss, | 906 74 | |
| | <u>\$5,351 99</u> | <u>\$5,351 99</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Balance June 30, 1892, | \$1,006 85 | |
| Balance of electric manufacturing account, | | \$906 74 |
| Materials omitted from inventory June 30, 1892, | | 1,173 05 |
| Other items of income, | | 163 34 |
| Interest paid, | 1,047 88 | |
| Other items, | 553 62 | |
| Balance June 30, 1893, | | 365 22 |
| | <u>\$2,608 35</u> | <u>\$2,608 35</u> |

LEOMINSTER ELECTRIC LIGHT AND POWER COMPANY.**Assets.**

| | |
|--|---------------------|
| Real estate, | \$11,617 60 |
| Steam plant, | 28,216 86 |
| Electric plant, | 21,278 49 |
| Lines, meters, lamps and transformers, | 58,080 22 |
| Franchise, | 10,000 00 |
| Due for electric light and power, | 3,350 69 |
| Fuel on hand, | 35 00 |
| Oil and waste on hand, | 33 17 |
| Incandescent lamps on hand, | 474 30 |
| Globes on hand, | 44 24 |
| Other materials on hand, | 217 13 |
| Tools on hand, | 62 40 |
| Horses, wagons, etc, | 203 00 |
| Sundry accounts due the company, | 632 11 |
| Office furniture, | 142 27 |
| Cash on hand, | 851 97 |
| Advance insurance and interest, | 976 29 |
| Total assets, as per books of the company, | <u>\$136,215 94</u> |
| Profit and loss balance, | 2,340 69 |
| | <u>\$138,556 63</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 82,087 33 |
| Unpaid bills, | 6,172 14 |
| Interest due but not paid, | 327 16 |
| Total liabilities, as per books of the company, | <u>\$138,556 63</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$15,286 86 | |
| Income from sale of electric light and power, | | \$19,603 76 |
| other sources, | | 116 96 |
| Balance to profit and loss, | 4,433 86 | |
| | <u>\$19,720 72</u> | <u>\$19,720 72</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | \$2,381 27 | |
| Balance of electric manufacturing account, | | \$4,433 86 |
| Interest paid, | 4,373 28 | |
| Other items, | 20 00 | |
| Balance June 30, 1893, | | 2,340 69 |
| | <u>\$6,774 55</u> | <u>\$6,774 55</u> |

LEOMINSTER GAS LIGHT COMPANY.

ASSETS.

| | | | |
|--|---|--|--------------------|
| Real estate, | } | | \$50,000 00 |
| Machinery and manufacturing appliances, | | | |
| Street mains, | | | |
| Meters, | | | |
| Due for gas, | | | 1,065 42 |
| Gas coal on hand, | | | 4 82 |
| Enrichers on hand, | | | 271 92 |
| Sundry accounts due the company, | | | 28 00 |
| Cash on hand, | | | 2,096 62 |
| Notes receivable, | | | 1,200 00 |
| Total assets, as per books of the company, | | | <u>\$54,666 78</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$50,000 00 |
| Total liabilities, as per books of the company, | <u>\$50,000 00</u> |
| Profit and loss balance, | 4,666 78 |
| | <u>\$54,666 78</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$4,568 44 | |
| Income from sale of gas, | | \$7,412 02 |
| other sources, | | 28 00 |
| Balance to profit and loss, | 2,871 58 | |
| | <u>\$7,440 02</u> | <u>\$7,440 02</u> |

| PROFIT AND LOSS ACCOUNT. | | Dr. | Cr. |
|---|-------------------|-----|-------------------|
| Balance June 30, 1892, | | | \$3,971 78 |
| Balance of gas manufacturing account, | | | 2,871 58 |
| Interest received, | | | 48 00 |
| Rents, | | | 118 00 |
| Dividends declared, | \$2,000 00 | | |
| Construction charged off, | 325 30 | | |
| Other items, | 17 28 | | |
| Balance June 30, 1893, | 4,666 78 | | |
| | <u>\$7,009 36</u> | | <u>\$7,009 36</u> |

LEXINGTON GAS LIGHT COMPANY.

| ASSETS. | | |
|---|--|--------------------|
| Real estate (gas), | | \$1,514 95 |
| Machinery and manufacturing appliances (gas), | | 21,623 73 |
| Street mains (gas), | | 7,490 90 |
| Meters (gas), | | 718 31 |
| Due for gas, | | 274 66 |
| Tar on hand, | | 15 00 |
| Enrichers on hand, | | 23 00 |
| Other gas materials on hand, | | 120 00 |
| Real estate (electric), | | 3,969 41 |
| Steam plant (electric), | | 4,457 48 |
| Electric plant, | | 8,175 76 |
| Lines, meters, lamps and globes (electric), } | | 8,937 14 |
| Patent rights, | | |
| Due for electric light and power, | | 539 00 |
| Fuel on hand (electric), | | 126 66 |
| Carbons on hand, | | 16 00 |
| Oil and waste on hand, | | 19 25 |
| Incandescent lamps on hand, | | 406 00 |
| Globes on hand, | | 284 60 |
| Other electric materials on hand, | | 673 48 |
| Sundry accounts due the company, | | 3,396 18 |
| Cash on hand, | | 503 30 |
| Total assets, as per books of the company, | | <u>\$63,184 71</u> |

| LIABILITIES. | | |
|---|--|--------------------|
| Capital stock, | | \$20,000 00 |
| Notes payable, | | 29,305 93 |
| Unpaid bills, | | 1,235 79 |
| Total liabilities, as per books of the company, | | <u>\$50,541 72</u> |
| Profit and loss balance, | | 12,642 99 |
| | | <u>\$63,184 71</u> |

| MANUFACTURING ACCOUNT. ¹ | | Dr. | Cr. |
|--|--|-------------------|-------------------|
| Operating expenses, { gas, | | \$3,194 52 | |
| { electric, | | 1,431 67 | |
| Income from sale of gas, | | | \$4,643 48 |
| residuals, | | | 41 50 |
| other sources, gas, | | | 19 80 |
| sale of electric light and power, | | | 1,649 74 |
| Balance to profit and loss, { gas, | | 1,510 26 | |
| { electric, | | 218 07 | |
| | | <u>\$6,354 52</u> | <u>\$6,354 52</u> |

¹ Began to sell electric light in February, 1893.

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$12,426 10 |
| Balance of gas manufacturing account, | | 1,510 26 |
| Balance of electric manufacturing account, | | 218 07 |
| Interest received, | | 200 43 |
| Rents, | | 10 00 |
| Other items of income, | | 19 20 |
| Dividends declared, | \$700 00 | |
| Interest paid, | 279 31 | |
| Depreciation, | 761 76 | |
| Balance June 30, 1893, | 12,642 99 | |
| | <hr/> | <hr/> |
| | \$14,384 06 | \$14,384 06 |

LOWELL ELECTRIC LIGHT CORPORATION.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$27,070 45 |
| Steam plant, | 98,041 21 |
| Electric plant, | 112,851 20 |
| Lines, meters, lamps and globes, | 228,608 11 |
| Inside wiring, | 9,390 50 |
| Due for electric light and power, | 11,783 36 |
| Fuel on hand, | 379 47 |
| Carbons on hand, | 735 50 |
| Oil and waste on hand, | 159 22 |
| Incandescent lamps on hand, | 613 18 |
| Globes on hand, | 42 50 |
| Other materials on hand, | 5,244 50 |
| Meters on hand, | 444 80 |
| Horses, wagons, etc., | 525 00 |
| Sundry accounts due the company, | 1,091 63 |
| Office furniture, | 180 00 |
| Cash on hand, | 1,407 54 |
| | <hr/> |
| Total assets, as per books of the company, | \$498,568 17 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$300,000 00 |
| Bonds issued, | 7,000 00 |
| Notes payable, | 154,455 64 |
| Unpaid bills, | 12,418 08 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$473,873 72 |
| Profit and loss balance, | 24,694 45 |
| | <hr/> |
| | \$498,568 17 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Operating expenses, | \$72,006 70 | |
| Income from sale of electric light and power, | | \$113,301 69 |
| other sources, | | 346 30 |
| Balance to profit and loss, | 41,641 29 | |
| | <hr/> | <hr/> |
| | \$113,647 99 | \$113,647 99 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$39,719 98 |
| Balance of electric manufacturing account, | | 41,641 29 |
| Interest received, | | 21 25 |
| Other items of income, | | 153 07 |
| Dividends declared, | \$20,993 00 | |
| Interest paid, | 9,348 14 | |
| Depreciation, | 26,000 00 | |
| Other items, | 500 00 | |
| Balance June 30, 1893, | 24,694 45 | |
| | <u>\$81,535 59</u> | <u>\$81,535 59</u> |

LOWELL GAS LIGHT COMPANY.

ASSETS.

| | | |
|--|---|---------------------|
| Real estate, | } | |
| Machinery and manufacturing appliances, | | |
| Street mains, | | |
| Meters, | | \$425,000 00 |
| Due for gas, | | 3,176 80 |
| Gas coal on hand, | | 1,187 23 |
| Coke on hand, | | 1,222 00 |
| Tar on hand, | | 3,200 00 |
| Enrichers on hand, | | 203 00 |
| Purifying materials on hand, | | 51 00 |
| Stoves on hand, | | 13,250 00 |
| Cash on hand, | | 29,984 07 |
| Investments, | | 106,609 47 |
| Total assets, as per books of the company, | | <u>\$583,883 57</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$500,000 00 |
| Total liabilities, as per books of the company, | <u>\$500,000 00</u> |
| Profit and loss balance, | 83,883 57 |
| | <u>\$583,883 57</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Operating expenses, | \$251,966 91 | |
| Income from sale of gas, | | \$292,986 69 |
| residuals, | | 69,292 10 |
| Balance to profit and loss, | 110,321 88 | |
| | <u>\$362,278 79</u> | <u>\$362,278 79</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Balance June 30, 1892, | | \$50,676 98 |
| Balance of gas manufacturing account, | | 110,321 88 |
| Rents, | | 5,162 45 |
| Dividends declared, | \$80,000 00 | |
| Interest paid, | 1,314 62 | |
| Depreciation, | 963 12 | |
| Balance June 30, 1893, | 83,883 57 | |
| | <hr/> | <hr/> |
| | \$166,161 31 | \$166,161 31 |

LYNN GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate (gas), | \$189,868 40 |
| Machinery and manufacturing appliances (gas), } | |
| Street mains (gas), | 132,854 12 |
| Due for gas, | 20,326 26 |
| Gas coal on hand, | 2,126 81 |
| Tar on hand, | 356 00 |
| Purifying materials on hand, | 200 00 |
| Stoves on hand, | 3,104 57 |
| Real estate (electric), | 23,034 79 |
| Steam plant (electric), | 24,982 62 |
| Electric plant, | 54,175 26 |
| Lines, meters, lamps and globes (electric), | 104,015 43 |
| Patent rights, | 15,000 00 |
| Due for electric light and power, | 11,941 71 |
| Carbons on hand, | 450 00 |
| Incandescent lamps on hand, | 255 29 |
| Globes on hand, | 30 00 |
| Sundry accounts due the company, | 1,609 23 |
| Cash on hand, | 13,007 14 |
| New electric station, | 25,959 80 |
| | <hr/> |
| Total assets, as per books of the company, | \$626,297 43 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$375,000 00 |
| Notes payable, | 128,000 00 |
| Unpaid bills, | 7,524 17 |
| Unpaid dividends, | 302 55 |
| Reserved fund, | 2,252 05 |
| Depreciation fund, | 10,000 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$523,078 77 |
| Profit and loss balance, | 103,218 66 |
| | <hr/> |
| | \$626,297 43 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Operating expenses, { gas, | \$104,253 03 | |
| { electric, | 63,870 06 | |
| Income from sale of gas, | | \$123,404 48 |
| residuals, | | 11,050 52 |
| sale of electric light and power, | | 121,492 35 |
| Balance to profit and loss, { gas, | 30,201 97 | |
| { electric, | 57,622 29 | |
| | <u>\$255,947 35</u> | <u>\$255,947 35</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Balance June 30, 1892, | | \$72,798 49 |
| Balance of gas manufacturing account, | | 30,201 97 |
| Balance of electric manufacturing account, | | 57,622 29 |
| Rents, | | 1,289 33 |
| Insurance for loss on electric station, | | 8,248 00 |
| Dividends declared, | \$30,000 00 | |
| Interest paid, | 6,441 42 | |
| Construction charged off (gas), | 14,000 00 | |
| Depreciation, | 16,500 00 | |
| Balance June 30, 1893, | 103,218 66 | |
| | <u>\$170,160 08</u> | <u>\$170,160 08</u> |

MALDEN ELECTRIC COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$27,424 26 |
| Steam plant, | |
| Electric plant, | 293,721 34 |
| Lines, meters, lamps and globes, } | |
| Patent rights, | 55,000 00 |
| Due for electric light and power, | 10,526 54 |
| Fuel on hand, | 186 65 |
| Carbons on hand, | 142 50 |
| Oil and waste on hand, | 54 42 |
| Incandescent lamps on hand, | 436 12 |
| Globes on hand, | 23 12 |
| Other materials on hand | 519 03 |
| Horses, wagons, etc., | 1,558 33 |
| Sundry accounts due the company, | 4,870 55 |
| Office furniture, | 300 00 |
| Cash on hand, | 2,156 30 |
| Total assets, as per books of the company, | <u>\$396,919 16</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$150,000 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 111,526 36 |
| Unpaid bills, | 833 57 |
| Total liabilities, as per books of the company, | <u>\$362,359 93</u> |
| Profit and loss balance, | 34,559 23 |
| | <u>\$396,919 16</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$44,136 72 | |
| Income from sale of electric light and power, | | \$73,891 82 |
| Balance to profit and loss, | 29,755 10 | |
| | <u>\$73,891 82</u> | <u>\$73,891 82</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$27,132 99 |
| Balance of electric manufacturing account, | | 29,755 10 |
| Wiring account, | | 621 16 |
| Lamp sales, | | 379 98 |
| Dividends declared, | \$12,000 00 | |
| Interest paid, | 11,330 00 | |
| Balance June 30, 1893, | 34,559 23 | |
| | <u>\$57,889 23</u> | <u>\$57,889 23</u> |

MALDEN AND MELROSE GAS LIGHT COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$46,332 48 |
| Machinery and manufacturing appliances, | 92,274 46 |
| Street mains, | 150,000 00 |
| Meters, | 14,000 00 |
| Due for gas, | 17,260 94 |
| Gas coal on hand, | 5,304 96 |
| Tar on hand, | 882 00 |
| Enrichers on hand, | 16 25 |
| Purifying materials on hand, | 56 00 |
| Other materials on hand, | 80 00 |
| Stoves on hand, | 112 20 |
| Gas fixtures on hand, | 500 00 |
| Sundry accounts due the company, | 3,415 80 |
| Cash on hand, | 426 88 |
| Total assets, as per books of the company, | <u>\$330,661 97</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$220,000 00 |
| Notes payable, | 24,400 00 |
| Unpaid bills, | 3,015 54 |
| Deposits, | 10 00 |
| Unpaid dividends, | 1,107 50 |
| Contingent fund, | 12,625 00 |
| Total liabilities, as per books of the company, | <u>\$261,168 04</u> |
| Profit and loss balance, | 69,503 93 |
| | <u>\$330,661 97</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$48,928 79 | |
| Income from sale of gas, | | \$70,506 29 |
| residuals, | | 8,089 62 |
| other sources, | | 10 50 |
| Balance to profit and loss, | 29,677 62 | |
| | <u>\$78,606 41</u> | <u>\$78,606 41</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$69,205 28 |
| Balance of gas manufacturing account, | | 29,677 62 |
| Other items of income, | | 183 91 |
| Dividends declared, | \$17,600 00 | |
| Interest paid, | 1,166 89 | |
| Construction charged off, | 3,888 10 | |
| Depreciation, | 5,348 75 | |
| Jobbing account, | 1,098 25 | |
| Bad debts, | 470 89 | |
| Balance June 30, 1893, | 69,503 93 | |
| | <hr/> | <hr/> |
| | \$99,066 81 | \$99,066 81 |

MANUFACTURERS' GAS LIGHT COMPANY (FALL RIVER).

ASSETS.

| | |
|--|-------------|
| Real estate, | \$3,000 00 |
| Machinery and manufacturing appliances, | |
| Street mains, | 46,804 99 |
| Meters, | |
| Gas coal on hand, | 1,600 00 |
| Coke on hand, | 50 00 |
| Enrichers on hand, | 500 00 |
| Sundry accounts due the company, | 658 19 |
| Cash on hand, | 5,999 26 |
| | <hr/> |
| Total assets, as per books of the company, | \$58,612 44 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$50,000 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$50,000 00 |
| Profit and loss balance, | 8,612 44 |
| | <hr/> |
| | \$58,612 44 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$15,386 81 | |
| Income from sale of gas, | | \$19,560 79 |
| residuals, | | 3,383 25 |
| Balance to profit and loss, | 7,557 23 | |
| | <hr/> | <hr/> |
| | \$22,944 04 | \$22,944 04 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$6,055 21 |
| Balance of gas manufacturing account, | | 7,557 23 |
| Dividends declared, | \$5,000 00 | |
| Balance June 30, 1893, | 8,612 44 | |
| | <hr/> | <hr/> |
| | \$13,612 44 | \$13,612 44 |

MARBLEHEAD GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$3,924 99 |
| Machinery and manufacturing appliances, | 13,707 94 |
| Street mains, | 21,000 00 |
| Meters, | 1,731 13 |
| Due for gas, | 899 30 |
| Gas coal on hand, | 1,473 12 |
| Coke on hand, | 70 00 |
| Tar on hand, | 219 00 |
| Stoves on hand, | 50 00 |
| Gas fixtures on hand, | 60 00 |
| Office furniture, | 50 00 |
| Cash on hand, | 641 80 |
| Investments, | 100 00 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$43,927 28 |
| Profit and loss balance, | 4,462 96 |

\$48,390 24

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$40,000 00 |
| Bonds issued, | 7,500 00 |
| Unpaid bills, | 890 24 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$48,390 24 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Operating expenses, | \$8,166 95 | |
| Income from sale of gas, | | \$9,243 68 |
| residuals, | | 445 97 |
| other sources, | | 8 00 |
| lighting and care of public lamps, | | 461 26 |
| Balance to profit and loss, | 1,991 96 | |
| | <hr/> \$10,158 91 | <hr/> \$10,158 91 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|------------------|------------------|
| Balance June 30, 1892, | \$6,219 00 | |
| Balance of gas manufacturing account, | | \$1,991 96 |
| Other items of income, | | 146 45 |
| Interest paid, | 332 37 | |
| Other items, | 50 00 | |
| Balance June 30, 1893, | | 4,462 96 |
| | <hr/> \$6,601 37 | <hr/> \$6,601 37 |

MARLBOROUGH ELECTRIC COMPANY.

ASSETS.

| | |
|---------------------------|------------|
| Real estate, | \$5,082 13 |
| Steam plant, | 9,559 28 |
| Electric plant, | 28,998 70 |

| | |
|---|-------------|
| Lines, meters, lamps and globes, | \$24,975 70 |
| New construction, | 24,307 74 |
| Due for electric light and power, | 1,035 61 |
| Fuel on hand, | 77 00 |
| Carbons on hand, | 272 00 |
| Oil and waste on hand, | 41 90 |
| Incandescent lamps on hand, | 545 90 |
| Globes on hand, | 29 40 |
| Bricks on hand, | 156 82 |
| Sundry accounts due the company, | 225 13 |
| Cash on hand, | 2,466 83 |

Total assets, as per books of the company, \$97,774 14

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 34,900 00 |
| Notes payable, | 20,000 00 |
| Unpaid bills, | 3,585 37 |

Total liabilities, as per books of the company, \$88,485 37

Profit and loss balance, 9,288 77

\$97,774 14

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|---|-------------|-------------|
| Operating expenses, | \$14,349 87 | |
| Income from sale of electric light and power, | | \$19,517 68 |
| Balance to profit and loss, | 5,167 81 | |
| | \$19,517 68 | \$19,517 68 |

PROFIT AND LOSS ACCOUNT.

| | DR. | CR. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$9,609 41 |
| Balance of electric manufacturing account, | | 5,167 81 |
| Interest received, | | 46 02 |
| Other items of income, | | 40 68 |
| Interest paid, | \$2,231 27 | |
| Depreciation, | 3,343 88 | |
| Balance June 30, 1893, | 9,288 77 | |
| | \$14,863 92 | \$14,863 92 |

MARLBOROUGH GAS LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$7,843 00 |
| Machinery and manufacturing appliances, | 53,780 68 |
| Street mains, | 9,857 40 |
| Meters, | 1,476 14 |
| Due for gas, | 3,495 11 |
| Gas coal on hand, | 890 82 |
| Coke on hand, | 71 50 |
| Tar on hand, | 426 00 |
| Enrichers on hand, | 11 25 |
| Purifying materials on hand, | 33 88 |
| Other materials on hand, | 106 48 |

| | |
|--|------------|
| Stoves on hand, | \$1,153 02 |
| Gas fixtures on hand, | 1,877 79 |
| Sundry accounts due the company, | 1,262 24 |
| Cash on hand, | 1,146 46 |

Total assets, as per books of the company, \$83,421 77

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 2,253 00 |
| Unpaid bills, | 878 39 |

Total liabilities, as per books of the company, \$53,131 39

Profit and loss balance, 30,290 38

\$83,421 77

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$9,600 15 | |
| Income from sale of gas, | | \$13,158 26 |
| residuals, | | 1,010 45 |
| other sources, | | 64 04 |
| Balance to profit and loss, | 4,632 60 | |
| | \$14,232 75 | \$14,232 75 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$25,634 48 |
| Balance of gas manufacturing account, | | 4,632 60 |
| Other items of income, | | 23 30 |
| Balance June 30, 1893, | \$30,290 38 | |
| | \$30,290 38 | \$30,290 38 |

MIDDLEBOROUGH GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate (gas), | \$11,023 24 |
| Machinery and manufacturing appliances (gas), | 14,751 37 |
| Street mains (gas), | 8,080 68 |
| Meters (gas), | 3,259 26 |
| Due for gas, | 606 35 |
| Gas coal on hand, | 168 20 |
| Enrichers on hand, | 44 00 |
| Other gas materials on hand, | 12 50 |
| Stoves on hand, | 38 45 |
| Real estate (electric), | 17,510 71 |
| Steam plant (electric), | 14,975 93 |
| Water power, | 42,062 35 |
| Electric plant, | 26,671 64 |
| Lines, meters and transformers (electric), | 29,698 96 |
| Franchise, | 4,530 52 |
| Due for electric light and power, | 303 03 |
| Fuel on hand (electric), | 10 00 |
| Carbons on hand, | 78 00 |
| Oil and waste on hand, | 46 45 |
| Incandescent lamps on hand, | 10 40 |

| | |
|---|---------|
| Globes on hand, | \$11 04 |
| Other electric materials on hand, | 233 67 |
| Tools, | 251 95 |
| Sundry accounts due the company, | 883 82 |
| Office furniture, | 16 75 |
| Cash on hand, | 537 23 |
| Unexpired insurance, | 202 92 |

| | |
|--|---------------------|
| Total assets, as per books of the company, | \$176,019 42 |
| Profit and loss balance, | 21,387 83 |
| | <u>\$197,407 25</u> |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$80,000 00 |
| Bonds issued, | 80,000 00 |
| Unpaid bills, | 26,207 25 |
| Interest due but not paid, | 11,200 00 |

| | |
|---|---------------------|
| Total liabilities, as per books of the company, | <u>\$197,407 25</u> |
|---|---------------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Operating expenses, { gas, | \$4,540 68 | |
| { electric, | 3,265 70 | |
| Income from sale of gas, | | \$3,149 23 |
| sale of electric light and power, | | 3,171 84 |
| other sources, electric, | | 78 00 |
| Balance to profit and loss, { gas, | | 1,391 45 |
| { electric, | | 15 86 |
| | <u>\$7,806 38</u> | <u>\$7,806 38</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | \$15,196 39 | |
| Balance of gas manufacturing account, | 1,391 45 | |
| Balance of electric manufacturing account, | 15 86 | |
| Interest paid, | 4,784 13 | |
| Balance June 30, 1893, | | \$21,387 83 |
| | <u>\$21,387 83</u> | <u>\$21,387 83</u> |

MILFORD ELECTRIC COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$5,063 24 |
| Steam plant, | 14,174 22 |
| Electric plant, | 14,228 81 |
| Lines, meters, lamps and globes, | 32,385 52 |
| Due for electric light and power, | 1,592 20 |
| Fuel on hand, | 45 00 |
| Carbons on hand, | 30 00 |
| Oil and waste on hand, | 66 00 |
| Incandescent lamps on hand, | 233 30 |
| Globes on hand, | 26 40 |
| Other materials on hand, | 903 56 |
| Sundry accounts due the company, | 305 99 |
| Office furniture, | 39 50 |
| Cash on hand, | 211 91 |
| Total assets, as per books of the company, | <u>\$69,305 45</u> |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$40,000 00 |
| Notes payable, | 20,500 00 |
| Unpaid bills, | 5,573 02 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$66,073 02 |
| Profit and loss balance, | 3,232 43 |

\$69,305 45

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$11,786 40 | |
| Income from sale of electric light and power, | | \$13,900 50 |
| Balance to profit and loss, | 2,114 10 | |
| | <hr/> \$13,900 50 | <hr/> \$13,900 50 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------------|------------------|
| Balance June 30, 1892, | | \$2,070 83 |
| Balance of electric manufacturing account, | | 2,114 10 |
| Interest paid, | \$952 50 | |
| Balance June 30, 1893, | 3,232 43 | |
| | <hr/> \$4,184 93 | <hr/> \$4,184 93 |

MILFORD GAS LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$3,450 00 |
| Machinery and manufacturing appliances, | 64,366 61 |
| Street mains, | 31,761 17 |
| Meters, | 2,500 00 |
| Due for gas, | 1,670 36 |
| Gas coal on hand, | 4,438 65 |
| Coke on hand, | 260 00 |
| Tar on hand, | 812 50 |
| Purifying materials on hand, | 60 00 |
| Other materials on hand, | 408 75 |
| Stoves on hand, | 211 81 |
| Gas fixtures on hand, | 1,739 97 |
| Sundry accounts due the company, | 28 45 |
| Office furniture, | 50 00 |
| Cash on hand, | 3,670 12 |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$115,428 39 |
|--|--------------|

LIABILITIES.

| | |
|------------------------------|-------------|
| Capital stock, | \$72,300 00 |
| Unpaid dividends, | 3,615 00 |
| Depreciation fund, | 35,800 00 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$111,715 00 |
| Profit and loss balance, | 3,713 39 |

\$115,428 39

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$12,885 04 | |
| Income from sale of gas, | | \$19,893 26 |
| residuals, | | 1,336 21 |
| other sources, | | 58 90 |
| Balance to profit and loss, | 8,603 33 | |
| | <u>\$21,288 37</u> | <u>\$21,288 37</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$2,340 06 |
| Balance of gas manufacturing account, | | 8,603 33 |
| Dividends declared, | \$7,230 00 | |
| Balance June 30, 1893, | 3,713 39 | |
| | <u>\$10,943 39</u> | <u>\$10,943 39</u> |

MILLBURY ELECTRIC COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$4,596 28 |
| Steam plant, | 6,308 45 |
| Electric plant, | 5,128 15 |
| Lines, meters and transformers, | 16,903 37 |
| Due for electric light and power, | 907 78 |
| Fuel on hand, | 83 92 |
| Carbons on hand, | 12 00 |
| Oil and waste on hand, | 24 15 |
| Incandescent lamps on hand, | 205 38 |
| Globes on hand, | 10 59 |
| Other materials on hand, | 173 85 |
| Sundry accounts due the company, | 12 40 |
| Cash on hand, | 496 42 |
| Tools, | 100 00 |
| Insurance and interest, | 78 25 |

Total assets, as per books of the company, \$35,040 99

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$15,000 00 |
| Notes payable, | 17,789 04 |
| Unpaid bills, | 813 39 |
| Interest due but not paid, | 1,040 00 |

Total liabilities, as per books of the company, \$34,642 43

Profit and loss balance, 398 56

\$35,040 99

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$5,021 90 | |
| Income from sale of electric light and power, | | \$5,688 31 |
| Balance to profit and loss, | 666 41 | |
| | <u>\$5,688 31</u> | <u>\$5,688 31</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$806 93 |
| Balance of electric manufacturing account, | | 666 41 |
| Interest paid, | \$1,074 78 | |
| Balance June 30, 1893, | 398 56 | |
| | <hr/> | <hr/> |
| | \$1,473 34 | \$1,473 34 |

MILTON LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$10,811 70 |
| Steam plant, | 10,374 00 |
| Electric plant, | 11,778 15 |
| Lines, meters, lamps and globes, | 32,511 91 |
| Due for electric light and power, | 918 66 |
| Fuel on hand, | 13 50 |
| Oil and waste on hand, | 43 00 |
| Incandescent lamps on hand, | 29 46 |
| Other materials on hand, | 166 10 |
| Horses, wagons, etc., | 75 00 |
| Office furniture, | 75 00 |
| Cash on hand, | 291 72 |
| | <hr/> |
| Total assets, as per books of the company, | \$67,088 20 |
| Profit and loss balance, | 3,505 51 |
| | <hr/> |
| | \$70,593 71 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 30,000 00 |
| Notes payable, | 9,951 91 |
| Unpaid bills, | 641 80 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$70,593 71 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$7,247 12 | |
| Income from sale of electric light and power, | | \$9,920 70 |
| other sources, | | 18 44 |
| Balance to profit and loss, | 2,692 02 | |
| | <hr/> | <hr/> |
| | \$9,939 14 | \$9,939 14 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$4,461 99 | |
| Balance of electric manufacturing account, | | \$2,692 02 |
| Wiring account, | | 123 35 |
| Lamp sales, | | 117 05 |
| Interest paid, | 1,138 37 | |
| Construction charged off, | 837 57 | |
| Balance June 30, 1893, | | 3,505 51 |
| | <hr/> | <hr/> |
| | \$6,437 93 | \$6,437 93 |

NANTUCKET ELECTRIC LIGHT COMPANY.

| ASSETS. | |
|--|--------------------|
| Real estate, | \$2,025 38 |
| Steam plant, | 10,719 90 |
| Electric plant, | 19,124 04 |
| Lines, meters, lamps and globes, | 24,521 40 |
| Due for electric light and power, | 180 99 |
| Fuel on hand, | 984 00 |
| Carbons on hand, | 39 23 |
| Oil and waste on hand, | 63 50 |
| Incandescent lamps on hand, | 80 80 |
| Globes on hand, | 30 40 |
| Unexpired insurance, | 17 00 |
| Office furniture, | 121 09 |
| Cash on hand, | 83 13 |
| Total assets, as per books of the company, | \$57,990 91 |
| Profit and loss balance, | 1,416 04 |
| | \$59,406 95 |
| LIABILITIES. | |
| Capital stock, | \$25,000 00 |
| Bonds issued, | 20,000 00 |
| Notes payable, | 11,684 81 |
| Unpaid bills, | 1,222 14 |
| Interest due but not paid, | 1,500 00 |
| Total liabilities, as per books of the company, | \$59,406 95 |

| MANUFACTURING ACCOUNT. | | |
|---|-------------------|-------------------|
| | Dr. | Cr. |
| Operating expenses, | \$5,037 83 | |
| Income from sale of electric light and power, | | \$5,905 13 |
| Balance to profit and loss, | 867 30 | |
| | \$5,905 13 | \$5,905 13 |
| PROFIT AND LOSS ACCOUNT. | | |
| | Dr. | Cr. |
| Balance June 30, 1892, | \$699 06 | |
| Balance of electric manufacturing account, | | \$867 30 |
| Interest paid, | 1,584 28 | |
| Balance June 30, 1893, | | 1,416 04 |
| | \$2,283 34 | \$2,283 34 |

NANTUCKET GAS LIGHT COMPANY.

| ASSETS. | |
|---|------------|
| Real estate, | \$3,000 00 |
| Machinery and manufacturing appliances, | 20,000 00 |
| Street mains, | 9,540 53 |
| Meters, | 4,000 00 |
| Due for gas, | 260 00 |
| Gas coal on hand, | 210 00 |

| | |
|------------------------------------|---------|
| Coke on hand, | \$15 00 |
| Tar on hand, | 16 80 |
| Other materials on hand, | 150 00 |
| Cash on hand, | 9 29 |
| Investments, | 368 00 |

| | |
|--|--------------------|
| Total assets, as per books of the company, | \$37,589 62 |
| Profit and loss balance, | 430 38 |
| | <u>\$38,000 00</u> |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$36,000 00 |
| Notes payable, | 2,000 00 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$38,000 00 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$4,318 09 | |
| Income from sale of gas, | | \$4,313 46 |
| residuals, | | 242 13 |
| other sources, | | 54 00 |
| Balance to profit and loss, | 291 50 | |
| | <u>\$4,609 59</u> | <u>\$4,609 59</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-----------------|-----------------|
| Balance June 30, 1892, | \$659 38 | |
| Balance of gas manufacturing account, | | \$291 50 |
| Interest paid, | 62 50 | |
| Balance June 30, 1893, | | 430 38 |
| | <u>\$721 88</u> | <u>\$721 88</u> |

NATICK ELECTRIC COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$25,786 25 |
| Steam plant, | 30,459 16 |
| Electric plant, | 30,498 20 |
| Lines, meters, lamps and globes, | 86,389 25 |
| Wiring, | 13,679 59 |
| Due for electric light and power, | 3,058 27 |
| Fuel on hand, | 2,120 93 |
| Carbons on hand, | |
| Oil and waste on hand, | |
| Incandescent lamps on hand, | |
| Globes on hand, | |
| Other materials on hand, | |
| Motors on hand, | |
| Electric fixtures on hand, | |
| Horses, wagons, etc., | 2,236 28 |
| Sundry accounts due the company, | |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$194,227 93 |
| Profit and loss balance, | 7,246 34 |

\$201,474 27

LIABILITIES.

| | |
|--|---------------------|
| Capital stock, | \$40,000 00 |
| Bonds issued, | 35,000 00 |
| Notes payable, | 10,880 43 |
| Unpaid bills, | 115,593 47 |
| Deposits, | 37 |
| Total liabilities, as per books of the company, | \$201,474 27 |

MANUFACTURING ACCOUNT.

| | DR. | CR. |
|---|--------------------|--------------------|
| Operating expenses, | \$14,792 08 | |
| Income from sale of electric light and power, | | \$19,578 15 |
| Balance to profit and loss, | 4,786 07 | |
| | \$19,578 15 | \$19,578 15 |

PROFIT AND LOSS ACCOUNT.

| | DR. | CR. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | \$9,414 01 | |
| Balance of electric manufacturing account, | | \$4,786 07 |
| Other items of income, | | 46 28 |
| Interest paid, | 2,664 68 | |
| Balance June 30, 1893, | | 7,246 34 |
| | \$12,078 69 | \$12,078 69 |

NATICK GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate, | \$16,670 38 |
| Machinery and manufacturing appliances, | 6,330 00 |
| Street mains, | 14,398 96 |
| Meters, | 2,014 00 |
| Due for gas, | 1,644 92 |
| Enrichers on hand, | 2,008 25 |
| Stoves on hand, | 1,053 71 |
| Gas fixtures on hand, | 599 18 |
| Office furniture, | 195 64 |
| Cash on hand, | 188 44 |
| Insurance, | 32 82 |
| Total assets, as per books of the company, | \$45,136 30 |

LIABILITIES.

| | |
|--|--------------------|
| Capital stock, | \$20,000 00 |
| Notes payable, | 10,000 00 |
| Unpaid bills, | 2,258 13 |
| Total liabilities, as per books of the company, | \$32,258 13 |
| Profit and loss balance, | 12,878 17 |
| | \$45,136 30 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$5,342 25 | |
| Income from sale of gas, | | \$5,088 48 |
| residuals, | | 330 17 |
| other sources, | | 14 00 |
| Balance to profit and loss, | 90 40 | |
| | <u>\$5,432 65</u> | <u>\$5,432 65</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$13,324 88 |
| Balance of gas manufacturing account, | | 90 40 |
| Other items of income, | | 40 |
| Interest paid, | \$537 51 | |
| Balance June 30, 1893, | 12,878 17 | |
| | <u>\$13,415 68</u> | <u>\$13,415 68</u> |

NEW BEDFORD GAS AND EDISON LIGHT COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate (gas), | \$189,065 12 |
| Machinery and manufacturing appliances (gas), } | |
| Street mains (gas) and services, | 139,143 83 |
| Meters (gas), | 18,019 69 |
| Due for gas, | 4,596 08 |
| Gas coal on hand, | 3,712 34 |
| Coke on hand, | 40 00 |
| Tar on hand, | 551 00 |
| Coffin Street extension, | 60,399 43 |
| Enrichers on hand, | 654 72 |
| Purifying materials on hand, | 119 00 |
| Other gas materials on hand, | 7,146 55 |
| Stoves on hand, | 7,279 89 |
| Gas and electric fixtures on hand, | 3,831 24 |
| Real estate (electric), | 57,763 85 |
| Steam plant (electric), | 67,582 91 |
| Electric plant, | 120,180 20 |
| Lines and meters (electric), | 112,993 94 |
| Patent rights, | 17,000 00 |
| Due for electric light and power, | 9,489 97 |
| Fuel on hand (electric), | 2,416 11 |
| Carbons on hand, | 365 90 |
| Oil and waste on hand, | 139 10 |
| Incandescent lamps on hand, | 813 65 |
| Globes on hand, | 113 74 |
| Other electric materials on hand, | 11,859 92 |
| Motors on hand, | 9,953 14 |
| Ammonia, | 55 00 |
| Horses, wagons, etc., | 684 63 |
| Sundry accounts due the company, | 25,984 43 |
| Office furniture, | 1,786 15 |
| Cash on hand, | 1,566 60 |
| Notes receivable, | 263 70 |
| Tools and supplies, | 6,369 67 |
| Total assets, as per books of the company, | <u>\$881,941 50</u> |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$550,000 00 |
| Notes payable, | 230,800 00 |
| Unpaid bills, | 16,857 74 |
| Deposits, | 678 81 |
| Interest due but not paid, | 2,654 00 |
| Depreciation fund, | 32,662 42 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$833,352 97 |
| Profit and loss balance, | 48,688 53 |
| <hr/> | |
| | \$881,941 50 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$40,465 38 | |
| { electric, | 63,866 76 | |
| Income from sale of gas, | | \$63,866 34 |
| residuals, | | 6,479 90 |
| other sources, gas, | | 11 00 |
| sale of electric light and power, | | 97,360 31 |
| other sources, electric, | | 2,805 68 |
| Balance to profit and loss, { gas, | 29,891 86 | |
| { electric, | 36,299 23 | |
| <hr/> | | |
| | \$170,523 23 | \$170,523 23 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$26,244 21 |
| Balance of gas manufacturing account, | | 29,891 86 |
| Balance of electric manufacturing account, | | 36,299 23 |
| Jobbing and fixture accounts, | | 2,624 01 |
| Rents, | | 435 56 |
| Merchandise accounts, | | 2,774 38 |
| Other items of income, | | 98 84 |
| Dividends declared, | \$33,000 00 | |
| Interest paid, | 10,776 46 | |
| Depreciation, | 4,719 85 | |
| Loss on wiring, | 1,116 63 | |
| Other items, | 66 70 | |
| Balance June 30, 1893, | 48,588 53 | |
| <hr/> | | |
| | \$98,268 17 | \$98,268 17 |

NEWBURYPORT GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|-----------|
| Real estate (gas), | \$1,132 4 |
| Machinery and manufacturing appliances (gas), | 76,500 0 |
| Street mains (gas), | 5,205 3 |
| Meters (gas), | 2,018 2 |
| Due for gas, | 2,421 8 |
| Gas coal on hand, | 2,242 0 |
| Coke on hand, | 60 0 |
| Tar on hand, | 368 0 |

| | |
|---|--------------|
| Enrichers on hand, | |
| Purifying materials on hand, | |
| Other gas materials on hand, | \$403 79 |
| Gas fixtures on hand, | 118 50 |
| Real estate (electric), | |
| Steam plant (electric), | 60,426 87 |
| Electric plant, | |
| Lines, meters, lamps and globes (electric), | 12,281 56 |
| Due for electric light and power, | 1,701 78 |
| Fuel on hand (electric), | 35 50 |
| Carbons on hand, | 150 00 |
| Oil and waste on hand, | 22 25 |
| Globes on hand, | 82 50 |
| Other electric materials on hand, | 305 50 |
| Horses, wagons, tools, etc., | 135 00 |
| Sundry accounts due the company, | 1,638 54 |
| Cash on hand, | 726 18 |
| Total assets, as per books of the company, | \$167,975 90 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$140,000 00 |
| Notes payable, | 14,000 00 |
| Unpaid bills, | 303 43 |
| Unpaid dividends, | 1,008 50 |
| Total liabilities, as per books of the company, | \$155,311 93 |
| Profit and loss balance, | 12,663 97 |
| | \$167,975 90 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Operating expenses, { gas, | \$12,542 96 | |
| { electric, | 13,425 68 | |
| Income from sale of gas, | | \$16,343 94 |
| residuals, | | 1,748 01 |
| sale of electric light and power, | | 19,716 52 |
| Balance to profit and loss, { gas, | 5,548 99 | |
| { electric, | 6,290 84 | |
| | \$37,808 47 | \$37,808 47 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$17,684 15 |
| Balance of gas manufacturing account, | | 5,548 99 |
| Balance of electric manufacturing account, | | 6,290 84 |
| Rents, | | 200 00 |
| Other items of income, | | 78 19 |
| Dividends declared, | \$8,400 00 | |
| Interest paid, | 701 53 | |
| Depreciation, | 7,484 51 | |
| Bad debts, | 552 16 | |
| Balance June 30, 1893, | 12,663 97 | |
| | \$29,802 17 | \$29,802 17 |

NEWTON AND WATERTOWN GAS LIGHT COMPANY.

ASSETS.

| | |
|---|---------------------|
| Real estate (gas), | \$73,205 03 |
| Machinery and manufacturing appliances (gas), | 98,355 54 |
| Street mains (gas), | 180,067 50 |
| Meters (gas), | 19,402 44 |
| Due for gas, | 21,625 84 |
| Gas coal on hand, | 639 20 |
| Coke on hand, | 30 00 |
| Tar on hand, | 2,250 00 |
| Other gas materials on hand, | 295 00 |
| Stoves on hand, | 276 12 |
| Gas fixtures on hand, | 1,195 00 |
| Real estate (electric), | 29,852 47 |
| Steam plant (electric), | 49,814 17 |
| Electric plant, | 32,706 90 |
| Lines, meters, lamps and globes (electric), | 88,102 42 |
| Due for electric light and power, | 5,591 82 |
| Fuel on hand (electric), | 585 25 |
| Carbons on hand, | 164 00 |
| Incandescent lamps on hand, | 1,197 25 |
| Other electric materials on hand, | 2,624 18 |
| Horses, wagons, etc., | 806 00 |
| Sundry accounts due the company, | 4,650 56 |
| Office furniture, | 447 65 |
| Cash on hand, | 5,739 96 |
| Notes receivable, | 645 72 |
| Investments, | 10,395 27 |
| Total assets, as per books of the company, | \$630,664 99 |

LIABILITIES.

| | |
|--|---------------------|
| Capital stock, | \$250,000 00 |
| Bonds issued, | 109,000 00 |
| Notes payable, | 8,000 00 |
| Unpaid bills, | 7,427 83 |
| Deposits, | 195 00 |
| Unpaid dividends, | 1,264 00 |
| Reserved fund, | 27,735 00 |
| Contingent fund, | 25,000 00 |
| Total liabilities, as per books of the company, | \$428,621 83 |
| Profit and loss balance, | 202,043 16 |
| | \$630,664 99 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Operating expenses, { gas, | \$81,346 85 | |
| { electric, | 27,346 85 | |
| Income from sale of gas, | | \$106,833 56 |
| residuals, | | 14,410 15 |
| other sources, gas, | | 2,098 92 |
| sale of electric light and power, | | 36,573 43 |
| Balance to profit and loss, { gas, | 40,995 78 | |
| { electric, | 9,226 58 | |
| | \$158,916 06 | \$158,916 06 |

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PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Balance June 30, 1892, | | \$174,150 54 |
| Balance of gas manufacturing account, | | 40,995 78 |
| Balance of electric manufacturing account, | | 9,225 58 |
| Interest received, | | 389 54 |
| Rents, | | 1,545 00 |
| Dividends declared, | \$18,000 00 | |
| Interest paid, | 6,048 16 | |
| Other items, | | 196 12 |
| Balance June 30, 1893, | 202,043 16 | |
| | <hr/> | <hr/> |
| | \$226,287 44 | \$226,287 44 |

NORTH ADAMS GAS LIGHT COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate (gas), | \$15,300 00 |
| Machinery and manufacturing appliances (gas), | 27,500 00 |
| Street mains (gas), | 20,000 00 |
| Meters (gas), | 4,719 00 |
| Due for gas, | 3,006 34 |
| Gas coal on hand, | 1,836 00 |
| Tar on hand, | 1,568 50 |
| Stoves on hand, | 1,714 24 |
| Gas fixtures on hand, } | |
| Real estate (electric), | 5,700 00 |
| Steam plant (electric), | 10,500 00 |
| Electric plant, | 10,000 00 |
| Lines, meters, lamps and globes (electric), | 20,720 00 |
| Due for electric light and power, | 954 56 |
| Carbons on hand, | 27 00 |
| Incandescent lamps on hand, | 700 00 |
| Globes on hand, | 100 00 |
| Other electric materials on hand, | 700 00 |
| Horses, wagons, etc., | 735 00 |
| Sundry accounts due the company, | 1,789 04 |
| Office furniture, | 1,234 50 |
| Cash on hand, | 547 82 |
| Investments, | 4,123 00 |

Total assets, as per books of the company, \$133,475 00

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 38,000 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$88,000 00 |
| Profit and loss balance, | 45,475 00 |
| | <hr/> |
| | \$133,475 00 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$25,893 44 | |
| { electric, | 14,541 51 | |
| Income from sale of gas, | | \$30 282 09 |
| residuals, | | 4,487 60 |
| other sources, | | 710 57 |
| sale of electric light and power, | | 20,074 56 |
| Balance to profit and loss, { gas, | 9,586 82 | |
| { electric, | 5,533 05 | |
| | <u>\$55,554 82</u> | <u>\$55,554 82</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$36,265 47 |
| Balance of gas manufacturing account, | | 9,586 82 |
| Balance of electric manufacturing account, | | 5,533 05 |
| Interest received, | | 254 94 |
| Dividends declared, | \$4,000 00 | |
| Interest paid, | 2,000 00 | |
| Other items, | 165 28 | |
| Balance June 30, 1893, | 45,475 00 | |
| | <u>\$51,640 28</u> | <u>\$51,640 28</u> |

NORTHAMPTON ELECTRIC LIGHTING COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$14,108 43 |
| Steam plant, | 40,300 41 |
| Electric plant, | 32,636 39 |
| Lines, meters, lamps and globes, | 2,997 82 |
| Due for electric light and power, | 170 00 |
| Fuel on hand, | 84 00 |
| Carbons on hand, | 75 00 |
| Incandescent lamps on hand, | 185 20 |
| Horses, wagons, etc., | 1,236 63 |
| Cash on hand, | 150 00 |
| Insurance prepaid, | |
| Total assets, as per books of the company, | <u>\$91,943 88</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$58,700 00 |
| Bonds issued, | 9,000 00 |
| Notes payable, | 13,000 00 |
| Unpaid bills, | 1,861 80 |
| Depreciation fund, | 4,000 00 |
| Total liabilities, as per books of the company, | <u>\$86,561 80</u> |
| Profit and loss balance, | 5,382 08 |
| | <u>\$91,943 88</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$12,475 93 | |
| Income from sale of electric light and power, . . . | | \$19,238 34 |
| Balance to profit and loss, | 6,762 41 | |
| | <u>\$19,238 34</u> | <u>\$19,238 34</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$5,124 37 |
| Balance of electric manufacturing account, . . . | | 6,762 41 |
| Rents, | | 423 52 |
| Dividends declared, | \$1,467 50 | |
| Interest paid, | 1,178 54 | |
| Depreciation, | 282 18 | |
| Depreciation fund, | 4,000 00 | |
| Balance June 30, 1893, | 5,382 08 | |
| | <u>\$12,310 30</u> | <u>\$12,310 30</u> |

NORTHAMPTON GAS LIGHT COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$24,900 00 |
| Machinery and manufacturing appliances, | 3,000 00 |
| Street mains, | 20,000 00 |
| Due for gas, | 2,186 62 |
| Gas coal on hand, | 137 05 |
| Coke on hand, | 15 00 |
| Tar on hand, | 270 00 |
| Enrichers on hand, | 8 45 |
| Purifying materials on hand, | 30 00 |
| Other materials on hand, | 1,298 58 |
| Stoves on hand, | 137 83 |
| New gas holder, | 16,218 54 |
| Sundry accounts due the company, | 843 54 |
| Cash on hand, | 2,824 64 |
| Investments, | 5,375 50 |
| Total assets, as per books of the company, | <u>\$77,245 75</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 8,000 00 |
| Reserved fund, | 5,418 50 |
| Total liabilities, as per books of the company, | <u>\$63,418 50</u> |
| Profit and loss balance, | 13,827 25 |
| | <u>\$77,245 75</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$18,117 23 | |
| Income from sale of gas, | | \$24,999 40 |
| residuals, | | 2,739 86 |
| other sources, | | 43 55 |
| Balance to profit and loss, | 9,665 58 | |
| | <u>\$27,782 81</u> | <u>\$27,782 81</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$10,803 64 |
| Balance of gas manufacturing account, | | 9,665 58 |
| Interest received, | | 390 61 |
| Rents, | | 209 25 |
| Dividends declared, | \$4,000 00 | |
| Interest paid, | 552 50 | |
| Construction charged off, | 2,689 33 | |
| Balance June 30, 1893, | 13,827 25 | |
| | <u>\$21,069 08</u> | <u>\$21,069 08</u> |

NORTH ATTLEBOROUGH STEAM AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$18,665 28 |
| Steam plant, | 45,354 70 |
| Electric plant, | 37,502 43 |
| Lines, meters, lamps and globes, | 41,140 42 |
| Unexpired insurance, | 450 00 |
| Due for electric light and power, | 2,143 74 |
| Fuel on hand, | 970 00 |
| Carbons on hand, | 69 50 |
| Oil and waste on hand, | 50 00 |
| Incandescent lamps on hand, | 347 84 |
| Other materials on hand, | 1,053 03 |
| Motors on hand, | 2,698 39 |
| Tools, | 418 26 |
| Sundry accounts due the company, | 2,219 36 |
| Office furniture, | 40 00 |
| Cash on hand, | 544 23 |
| Notes receivable, | 186 97 |

| | |
|--|--------------|
| Total assets, as per books of the company, | \$153,854 15 |
| Profit and loss balance, | 19,906 32 |

\$173,760 47

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 75,000 00 |
| Notes payable, | 5,154 50 |
| Unpaid bills, | 13,605 97 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$173,760 47 |
|---|--------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$54,954 22 | |
| Income from sale of electric light and power, | | \$41,068 12 |
| Balance to profit and loss, | | 13,886 10 |
| | <u>\$54,954 22</u> | <u>\$54,954 22</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$2,622 73 |
| Balance of electric manufacturing account, | \$13,886 10 | |
| Rents, | | 659 09 |
| Wiring account, | | 439 36 |
| Interest paid, | 9,240 13 | |
| Repairs of real estate, | 122 51 | |
| Depreciation, | 378 76 | |
| Balance June 30, 1893, | | 19,906 32 |
| | <hr/> | <hr/> |
| | \$23,627 50 | \$23,627 50 |

NORTH ATTLEBOROUGH GAS LIGHT COMPANY.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$47,474 72 |
| Machinery and manufacturing appliances, | 20,234 96 |
| Street mains, | 22,330 69 |
| Meters, | 3,851 05 |
| Due for gas, | 1,516 60 |
| Gas coal on hand, | 1,647 50 |
| Coke on hand, | 29 33 |
| Tar on hand, | 724 26 |
| Enrichers on hand, | 63 82 |
| Purifying materials on hand, | 78 13 |
| Other materials on hand, | 200 00 |
| Stoves on hand, | 835 19 |
| Gas fixtures on hand, | 642 16 |
| Sundry accounts due the company, | 446 46 |
| Office furniture, | 210 00 |
| Cash on hand, | 11,005 88 |
| | <hr/> |
| Total assets, as per books of the company, | \$111,290 75 |

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$68,100 00 |
| Bonds issued, | 33,915 00 |
| Unpaid bills, | 101 17 |
| Unpaid dividends, | 2,043 00 |
| Interest due but not paid, | 508 72 |
| | <hr/> |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$104,667 89 |
| Profit and loss balance, | 6,622 86 |
| | <hr/> |

\$111,290 75

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$16,167 76 | |
| Income from sale of gas, | | \$26,294 95 |
| residuals, | | 2,687 23 |
| other sources, | | 182 68 |
| Balance to profit and loss, | 12,997 10 | |
| | <hr/> | <hr/> |
| | \$29,164 86 | \$29,164 86 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$5,091 16 |
| Balance of gas manufacturing account, | | 12,997 10 |
| Interest received, | | 68 95 |
| Rents, | | 118 55 |
| Jobbing account, | | 28 90 |
| Other items of income, | | 7 75 |
| Dividends declared, | \$4,086 00 | |
| Interest paid, | 2,034 90 | |
| Depreciation, | 5,568 65 | |
| Balance June 30, 1893, | 6,622 86 | |
| | <u>\$18,312 41</u> | <u>\$18,312 41</u> |

NORTH SHORE ELECTRIC COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$15,793 00 |
| Steam plant, | 48,060 19 |
| Electric plant, | 95,561 50 |
| Lines, meters and transformers, | 93,377 89 |
| Franchise, | 10,000 00 |
| Due for electric light and power, | 7,634 27 |
| Fuel on hand, | 11 76 |
| Carbons on hand, | 50 00 |
| Oil and waste on hand, | 37 93 |
| Incandescent lamps on hand, | 1,053 71 |
| Globes on hand, | 51 33 |
| Other materials on hand, | 583 86 |
| Tools on hand, | 58 75 |
| Horses, wagons, etc., | 245 00 |
| Sundry accounts due the company, | 801 65 |
| Office furniture, | 187 30 |
| Cash on hand, | 89 14 |
| Notes receivable, | 300 00 |
| Insurance, interest, | 888 44 |
| Total assets, as per books of the company, | \$274,775 71 |
| Profit and loss balance, | 4,307 12 |
| | <u>\$279,082 83</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$125,000 00 |
| Bonds issued, | 75,000 00 |
| Notes payable, | 67,983 56 |
| Unpaid bills, | 7,572 94 |
| Interest due but not paid, | 3,526 33 |
| Total liabilities, as per books of the company, | <u>\$279,082 83</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$14,100 76 | |
| Income from sale of electric light and power, | | \$19,308 07 |
| Balance to profit and loss, | 5,207 31 | |
| | <u>\$19,308 07</u> | <u>\$19,308 07</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$1,615 72 | |
| Balance of electric manufacturing account, | | \$5,207 31 |
| Interest paid, | 7,898 71 | |
| Balance June 30, 1893, | | 4,307 12 |
| | <hr/> | <hr/> |
| | \$9,514 43 | \$9,514 43 |

NORWOOD GAS LIGHT COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$3,000 00 |
| Machinery and manufacturing appliances, } | 8,118 57 |
| Street mains, | |
| Meters, | 962 65 |
| Due for gas, | 609 60 |
| Gas coal on hand, | 201 98 |
| Cash on hand, | 1,146 21 |
| | <hr/> |
| Total assets, as per books of the company, | \$14,039 01 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$12,000 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$12,000 00 |
| Profit and loss balance, | 2,039 01 |
| | <hr/> |
| | \$14,039 01 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------|------------|
| Operating expenses, | \$3,692 24 | |
| Income from sale of gas, | | \$3,831 43 |
| Balance to profit and loss, | 139 19 | |
| | <hr/> | <hr/> |
| | \$3,831 43 | \$3,831 43 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Balance June 30, 1892, | | \$1,899 82 |
| Balance of gas manufacturing account, | | 139 19 |
| Balance June 30, 1893, | \$2,039 01 | |
| | <hr/> | <hr/> |
| | \$2,039 01 | \$2,039 01 |

ORANGE ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Real estate, | \$1,703 28 |
| Steam plant, | 8,516 73 |
| Electric plant, | 4,970 90 |
| Lines, meters, lamps and globes, | 26,298 55 |
| Due for electric light and power, | 884 40 |
| Fuel on hand, | 71 64 |
| Carbons on hand, | 23 00 |
| Oil and waste on hand, | 16 40 |

| | |
|--|-----------|
| Incandescent lamps on hand, | \$195 60 |
| Other materials on hand, | 106 00 |
| Tools, | 100 05 |
| Horses, wagons, etc., | 80 00 |
| Sundry accounts due the company, | 93 00 |
| Office furniture, | 35 00 |
| Cash on hand, | 699 26 |
| Insurance, unexpired, | 85 00 |
| Investments, | 43,532 29 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$87,411 10 |
| Profit and loss balance, | 9,284 46 |

\$96,695 56

LIABILITIES.

| | |
|--------------------------------------|-----------|
| Capital stock, | 45,000 00 |
| Bonds issued, | 45,000 00 |
| Notes payable, | 1,500 00 |
| Unpaid bills, | 4,070 66 |
| Interest due but not paid, | 1,125 00 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$96,695 56 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------------|------------------|
| Operating expenses, | \$8,778 68 | |
| Income from sale of electric light and power, | | \$7,783 78 |
| other sources, | | 31 27 |
| Balance to profit and loss, | | 963 63 |
| | <hr/> \$8,778 68 | <hr/> \$8,778 68 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | \$7,079 59 | |
| Balance of electric manufacturing account, | 963 63 | |
| Sales account, | | \$349 10 |
| Wiring account, | | 453 71 |
| Rents, | | 430 95 |
| Interest paid, | 2,475 00 | |
| Balance June 30, 1893, | | 9,284 46 |
| | <hr/> \$10,518 22 | <hr/> \$10,518 22 |

GAS WORKS OF THE OTIS COMPANY OF WARE.

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|------------------------------------|------------------|------------------|
| Operating expenses, | \$6,091 31 | |
| Income from sale of gas, | | \$5,356 21 |
| residuals, | | 375 00 |
| other sources, | | 9 35 |
| Balance, ¹ | | 350 75 |
| | <hr/> \$6,091 31 | <hr/> \$6,091 31 |

¹ 1,006,900 feet of gas used in the mills of the company, and not included in the income given.

PALMER AND MONSON ELECTRIC COMPANY.

(Formerly the Palmer Electric Company.)

ASSETS.

| | |
|---|---------------------|
| Real estate, | \$67,097 66 |
| Steam plant, | 13,821 20 |
| Electric plant, | 21,114 83 |
| Lines, meters, lamps and globes, | 37,671 61 |
| Patent rights, | 6,000 00 |
| Due for electric light and power, | 1,337 97 |
| Carbons on hand, | 45 00 |
| Oil and waste on hand, | 14 20 |
| Incandescent lamps on hand, | 460 00 |
| Globes on hand, | 2 00 |
| Other materials on hand, | 286 42 |
| Horses, wagons, etc., | 214 30 |
| Sundry accounts due the company, | 2,694 10 |
| Office furniture, | 65 95 |
| Cash on hand, | 229 21 |
| Total assets, as per books of the company, | \$151,054 45 |

LIABILITIES.

| | |
|--|---------------------|
| Capital stock, | \$30,000 00 |
| Bonds issued, | 46,000 00 |
| Notes payable, | 51,827 49 |
| Unpaid bills, | 21,807 80 |
| Total liabilities, as per books of the company, | \$149,635 29 |
| Profit and loss balance, | 1,419 16 |
| | \$151,054 45 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$6,902 51 | |
| Income from sale of electric light and power, | | \$6,851 06 |
| Balance to profit and loss, | | 51 45 |
| | \$6,902 51 | \$6,902 51 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,876 77 |
| Balance of electric manufacturing account, | \$51 45 | |
| Rebates on accounts, | | 1,466 31 |
| Interest paid, | 1,872 47 | |
| Balance June 30, 1893, | 1,419 16 | |
| | \$3,343 08 | \$3,343 08 |

PITTSFIELD ELECTRIC COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$40,845 68 |
| Steam plant, | 36,924 69 |
| Electric plant, | 71,115 41 |
| Lines, meters, lamps and globes, | 31,678 18 |

| | |
|---|------------|
| Due for electric light and power, | \$4,107 00 |
| Fuel on hand, | 1,106 82 |
| Carbons on hand, | 148 69 |
| Incandescent lamps on hand, | 515 94 |
| Globes on hand, | 20 00 |
| Tools on hand, | 1,011 42 |
| Electric fixtures and supplies on hand, | 344 24 |
| Sundry accounts due the company, | 164 61 |
| Office furniture, | 234 97 |
| Cash on hand, | 1,158 67 |
| Insurance and interest not matured, | 366 89 |
| Investments, | 6,015 13 |

Total assets, as per books of the company, \$196,758 24

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$100,000 00 |
| Bonds issued, | 75,000 00 |
| Unpaid bills, | 2,058 75 |
| Amounts due from the company, not included above, | 2,193 35 |

Total liabilities, as per books of the company, \$179,252 10
Profit and loss balance, 16,506 14

\$195,758 24

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$34,966 37 | |
| Income from sale of electric light and power, | | \$50,859 30 |
| Balance to profit and loss, | 15,892 93 | |
| | \$50,859 30 | \$50,859 30 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$13,717 67 |
| Balance of electric manufacturing account, | | 15,892 93 |
| Rents, | | 861 70 |
| Other items of income, | | 39 50 |
| Dividends declared, | \$5,000 00 | |
| Interest paid, | 3,800 00 | |
| Depreciation, | 5,000 00 | |
| Other items, | 205 66 | |
| Balance June 30, 1893, | 16,506 14 | |
| | \$30,611 80 | \$30,511 80 |

PITTSFIELD COAL GAS COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$30,650 85 |
| Machinery and manufacturing appliances, | 37,591 36 |
| Street mains, | 19,110 00 |
| Meters, | 6,540 00 |
| Due for gas, | 4,042 81 |
| Gas coal on hand, | 999 00 |
| Enrichers on hand, | 122 50 |
| Stoves on hand, | 89 50 |

| | |
|--|---------------------|
| Cash on hand, | \$877 50 |
| Notes receivable, | 17,400 00 |
| Investments, | 2,450 00 |
| Total assets, as per books of the company, | <u>\$119,873 52</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$62,500 00 |
| Unpaid bills, | 500 00 |
| Reserved fund, | 40,000 00 |
| Total liabilities, as per books of the company, | <u>\$103,000 00</u> |
| Profit and loss balance, | 16,873 52 |
| | <u>\$119,873 52</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$17,998 14 | |
| Income from sale of gas, | | \$25,341 92 |
| residuals, | | 11 75 |
| other sources, | | 61 50 |
| Balance to profit and loss, | 7,417 03 | |
| | <u>\$25,415 17</u> | <u>\$25,415 17</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$16,984 87 |
| Balance of gas manufacturing account, | | 7,417 03 |
| Interest received, | | 190 39 |
| Rents, | | 66 33 |
| Dividends declared, | \$7,500 00 | |
| Interest paid, | 3 75 | |
| Other items, | 281 35 | |
| Balance June 30, 1893, | 16,873 52 | |
| | <u>\$24,658 62</u> | <u>\$24,658 62</u> |

PLYMOUTH ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$14,472 10 |
| Steam plant, | 41,046 26 |
| Electric plant, | 47,609 99 |
| Lines, meters, lamps and globes, | 29,741 01 |
| Patent rights, | 8,000 00 |
| Due for electric light and power, | 2,710 46 |
| Fuel on hand, | 2,064 00 |
| Carbons on hand, | 35 00 |
| Oil and waste on hand, | 30 03 |
| Incandescent lamps on hand, | 73 30 |
| Globes on hand, | 10 22 |
| Other materials on hand, | 2,092 58 |
| Sundry accounts due the company, | 149 50 |
| Cash on hand, | 415 17 |
| Total assets, as per books of the company, | <u>\$148,449 62</u> |
| Profit and loss balance, | 27,961 52 |
| | <u>\$176,411 14</u> |

LIABILITIES.

| | |
|--|---------------------|
| Capital stock, | \$90,000 00 |
| Bonds issued, | 80,000 00 |
| Unpaid bills, | 5,456 21 |
| Interest due but not paid, | 954 93 |
| Total liabilities, as per books of the company, | \$176,411 14 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$15,600 32 | |
| Income from sale of electric light and power, | | \$18,438 49 |
| Other sources, | | 72 00 |
| Balance to profit and loss, | 2,910 17 | |
| | \$18,510 49 | \$18,510 49 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | \$643 98 | |
| Balance of electric manufacturing account, | | \$2,910 17 |
| Wiring account, | | 217 48 |
| Sale of materials, | | 745 33 |
| Interest paid, | 2,887 29 | |
| Cost of reorganization, increase of bonds and capital stock and payment of notes, | 28,403 23 | |
| Balance June 30, 1893, | | 27,961 52 |
| | \$31,834 50 | \$31,834 50 |

PLYMOUTH GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate, | \$8,350 00 |
| Machinery and manufacturing appliances, | 16,484 34 |
| Street mains, | 14,650 00 |
| Meters, | 2,000 00 |
| Due for gas, | 2,241 63 |
| Gas coal on hand, | 14 31 |
| Tar on hand, | 14 00 |
| Enrichers on hand, | 14 35 |
| Stoves on hand, | 22 63 |
| Gas fixtures on hand, | 432 77 |
| Sundry accounts due the company, | 653 13 |
| Cash on hand, | 395 40 |
| Total assets, as per books of the company, | \$45,272 56 |

LIABILITIES.

| | |
|--|--------------------|
| Capital stock, | \$40,000 00 |
| Notes payable, | 1,500 00 |
| Unpaid dividends, | 81 50 |
| Amounts due from the company, not included above, | 533 02 |
| Total liabilities, as per books of the company, | \$42,114 52 |
| Profit and loss balance, | 3,158 04 |
| | \$45,272 56 |

MANUFACTURING ACCOUNT.

| | Dr. • | Cr |
|---------------------------------------|-------------------|-------------------|
| Operating expenses, | \$6,778 92 | |
| Income from sale of gas, | | \$8,898 64 |
| other sources, | | 618 32 |
| Balance to profit and loss, | 2,788 04 | |
| | <u>\$9,516 96</u> | <u>\$9,516 96</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Balance June 30, 1892, | | \$4,182 09 |
| Balance of gas manufacturing account, | | 2,738 04 |
| Old debts collected, | | 40 21 |
| Dividends declared, | \$2,000 00 | |
| Interest paid, | 75 30 | |
| Construction charged off, | 250 38 | |
| Depreciation, | 1,476 64 | |
| Balance June 30, 1893, | 3,158 04 | |
| | <u>\$6,960 34</u> | <u>\$6,960 34</u> |

QUINCY ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$9,688 14 |
| Steam plant, | |
| Electric plant, | 107,402 16 |
| Lines, meters, lamps and globes, | |
| Due for electric light and power, | 3,337 47 |
| Fuel on hand, | 247 70 |
| Carbons on hand, | 50 00 |
| Oil and waste on hand, | 41 20 |
| Incandescent lamps on hand, | 208 35 |
| Other materials on hand, | 343 96 |
| Electric fixtures on hand, | 159 50 |
| Horses, wagons, etc., | 825 68 |
| Office furniture, | 83 75 |
| Cash on hand, | 135 68 |
| Total assets, as per books of the company, | <u>\$122,423 59</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$89,700 00 |
| Notes payable, | 23,800 00 |
| Unpaid bills, | 2,337 77 |
| Unpaid dividends, | 117 00 |
| Total liabilities, as per books of the company, | <u>\$115,954 77</u> |
| Profit and loss balance, | 6,468 82 |
| | <u>\$122,423 59</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$23,455 32 | |
| Income from sale of electric light and power, | | \$30,894 27 |
| Balance to profit and loss, | 7,438 95 | |
| | <u>\$30,894 27</u> | <u>\$30,894 27</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$5,771 63 |
| Balance of electric manufacturing account, | | 7,438 95 |
| Rents, | | 37 00 |
| Dividends declared, | \$5,382 00 | |
| Interest paid, | 1,159 09 | |
| Other items, | 237 67 | |
| Balance June 30, 1893, | 6,468 82 | |
| | <u>\$13,247 58</u> | <u>\$13,247 58</u> |

ROXBURY GAS LIGHT COMPANY.

ASSETS.

| | |
|--|-----------------------|
| Real estate, | \$116,365 91 |
| Machinery and manufacturing appliances, | 304,563 30 |
| Street mains, | 349,073 46 |
| Meters, | 85,043 06 |
| Due for gas, | 30,560 38 |
| Enrichers on hand, | 3 00 |
| Purifying materials on hand, | 539 68 |
| Other materials on hand, | 3,099 15 |
| Patent rights, | 50,000 00 |
| Gas on hand, | 1,361 58 |
| Sundry accounts due the company, | 3,593 94 |
| Cash on hand, | 34,270 15 |
| Notes receivable, | 39,905 00 |
| Total assets, as per books of the company, | <u>\$1,018,378 61</u> |

LIABILITIES.

| | |
|---|-----------------------|
| Capital stock, | \$600,000 00 |
| Unpaid bills, | 5,047 73 |
| Deposits, | 6,067 00 |
| Amounts due from the company, not included above, | 3,059 41 |
| Total liabilities, as per books of the company, | <u>\$614,174 14</u> |
| Profit and loss balance, | 404,204 47 |
| | <u>\$1,018,378 61</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Operating expenses, | \$212,205 50 | |
| Income from sale of gas, | | \$270,530 66 |
| residuals, | | 8 78 |
| other sources, | | 269 45 |
| Balance to profit and loss, | 58,603 39 | |
| | <u>\$270,808 89</u> | <u>\$270,808 89</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$399,801 55 |
| Balance of gas manufacturing account, | | 58,603 39 |
| Interest received, | | 998 68 |
| Rents, | | 1,342 25 |
| Other items of income, | | 3,458 60 |
| Dividends declared, | \$60,000 00 | |
| Balance June 30, 1893, | 404,204 47 | |
| | <u>\$464,204 47</u> | <u>\$464,204 47</u> |

SALEM ELECTRIC LIGHTING COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$45,500 00 |
| Steam plant, | 87,000 00 |
| Electric plant, | 45,000 00 |
| Lines, meters, lamps and globes, | 95,500 00 |
| Patent rights, | 3,263 45 |
| Due for electric light and power, | 10,354 82 |
| Fuel on hand, | 7,218 00 |
| Carbons on hand, | 176 00 |
| Incandescent lamps on hand, | 1,265 27 |
| Globes on hand, | 70 53 |
| Other materials on hand, | 565 81 |
| Horses, wagons, etc., | 800 00 |
| Sundry accounts due the company, | 211 80 |
| Office furniture, | 300 00 |
| Cash on hand, | 3,021 63 |
| Investments, | 3,000 00 |

Total assets, as per books of the company, \$303,247 21

LIABILITIES.

| | |
|------------------------------|--------------|
| Capital stock, | \$175,000 00 |
| Bonds issued, | 50,000 00 |
| Notes payable, | 45,000 00 |
| Reserved fund, | 13,375 00 |
| Depreciation fund, | 4,067 61 |

Total liabilities, as per books of the company, \$287,442 61

Profit and loss balance, 15,804 60

\$303,247 21

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Operating expenses, | \$64,977 48 | |
| Income from sale of electric light and power, | | \$101,503 36 |
| Balance to profit and loss, | 36,525 88 | |
| | \$101,503 36 | \$101,503 36 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$8,555 29 |
| Balance of electric manufacturing account, | | 36,525 88 |
| Other items of income, | | 2,008 65 |
| Dividends declared, | \$10,500 00 | |
| Interest paid, | 4,826 39 | |
| Depreciation, | 11,657 96 | |
| Reserve fund, | 3,375 00 | |
| Repairs of real estate, | 925 87 | |
| Balance June 30, 1893, | 15,804 60 | |
| | \$47,089 82 | \$47,089 82 |

SALEM GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate, | \$149,041 42 |
| Machinery and manufacturing appliances, | 62,500 00 |
| Street mains, | 99,034 83 |
| Meters, | 13,800 00 |
| Due for gas, | 11,326 95 |
| Gas coal on hand, | 101 47 |
| Tar on hand, | 2,760 00 |
| Enrichers on hand, | 763 60 |
| Purifying materials on hand, | 219 16 |
| Other materials on hand, | 948 20 |
| Stoves on hand, | 678 95 |
| Gas fixtures on hand, | 805 06 |
| Horses, wagons, etc., | 500 00 |
| Office furniture, | 200 00 |
| Cash on hand, | 4,129 50 |
| Investments, | 3,463 00 |

Total assets, as per books of the company, \$350,262 14

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$300,000 00 |
| Deposits, | 432 00 |
| Amounts due from the company, not included above, | 2,619 50 |

Total liabilities, as per books of the company, \$303,051 50
 Profit and loss balance, 47,210 64

\$350,262 14

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|-------------|-------------|
| Operating expenses, | \$47,272 46 | |
| Income from sale of gas, | | \$57,129 95 |
| residuals, | | 5,861 27 |
| Balance to profit and loss, | 15,718 76 | |
| | \$62,991 22 | \$62,991 22 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Balance June 30, 1892, | | \$53,110 98 |
| Balance of gas manufacturing account, | | 15,718 76 |
| Interest received, | | 47 65 |
| Rents, | | 205 20 |
| Other items of income, | | 59 60 |
| Dividends declared, | \$21,000 00 | |
| Interest paid, | 21 91 | |
| Jobbing account, | 488 63 | |
| Depreciation, | 117 72 | |
| Repairs to dwelling house, | 303 29 | |
| Balance June 30, 1893, | 47,210 64 | |
| | \$69,142 19 | \$69,142 19 |

SOMERVILLE ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$22,139 66 |
| Steam plant, | 46,715 08 |
| Electric plant, | 64,122 24 |
| Lines, meters, lamps and globes, | 168,581 86 |
| Artesian wells, | 2,206 73 |
| Due for electric light and power, | 6,898 36 |
| Fuel on hand, | 260 00 |
| Carbons on hand, | 349 52 |
| Oil and waste on hand, | 143 87 |
| Incandescent lamps on hand, | 1,140 99 |
| Globes on hand, | 71 50 |
| Other materials on hand, | 1,184 32 |
| Belting, | 1,523 75 |
| Tools, | 1,102 13 |
| Horses, wagons, etc., | 710 00 |
| Sundry accounts due the company, | 551 55 |
| Office furniture, | 528 43 |
| Cash on hand, | 1,389 00 |
| Notes receivable and advance interest, | 175 11 |
| Unexpired insurance, | 541 74 |
| Total assets, as per books of the company, | \$320,335 34 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$200,000 00 |
| Bonds issued, | 4,500 00 |
| Notes payable, | 92,339 64 |
| Unpaid bills, | 9,080 88 |
| Total liabilities, as per books of the company, | \$305,920 52 |
| Profit and loss balance, | 14,414 82 |
| | \$320,335 34 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$46,221 34 | |
| Income from sale of electric light and power, | | \$69,696 56 |
| Balance to profit and loss, | 23,475 22 | |
| | \$69,696 56 | \$69,696 56 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$5,710 11 |
| Balance of electric manufacturing account, | | 23,475 22 |
| Other items of income, | | 406 19 |
| Dividends declared, | \$11,163 00 | |
| Interest paid, | 4,013 70 | |
| Balance June 30, 1893, | 14,414 82 | |
| | \$29,591 52 | \$29,591 52 |

SOUTH BOSTON GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate, | \$200,945 76 |
| Machinery and manufacturing appliances, } | 280,479 66 |
| Street mains, | |
| Meters, | 23,330 97 |
| Due for gas, | 9,829 23 |
| Gas coal on hand, | 4,288 93 |
| Coke on hand, | 442 75 |
| Gas on hand, | 148 18 |
| Enrichers on hand, | 13 69 |
| Purifying materials on hand, | 112 10 |
| Other materials on hand, | 1,224 21 |
| Patent rights, | 25,000 00 |
| Sundry accounts due the company, | 1,240 95 |
| Cash on hand, | 40,656 06 |
| Notes receivable, | 1,373 55 |
| Investments, | 22,000 00 |

Total assets, as per books of the company, \$611,085 93

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$440,000 00 |
| Unpaid bills, | 7,009 74 |
| Deposits, | 2,003 95 |
| Amounts due from the company, not included above, | 1,027 60 |

Total liabilities, as per books of the company, \$450,041 29

Profit and loss balance, 161,044 64

\$611,085 93

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------|--------------|
| Operating expenses, | \$91,930 18 | |
| Income from sale of gas, | | \$117,079 40 |
| residuals, | | 22,713 49 |
| Balance to profit and loss, | 47,862 71 | |
| | \$139,792 89 | \$139,792 89 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Balance June 30, 1892, | | \$131,911 13 |
| Balance of gas manufacturing account, | | 47,862 71 |
| Rents, | | 1,547 40 |
| Dividends declared, | \$17,600 00 | |
| Interest paid, | 676 60 | |
| Depreciation, | 2,000 00 | |
| Balance June 30, 1893, | 161,044 64 | |
| | \$181,321 24 | \$181,321 24 |

SOUTHBIDGE GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate (gas), | \$5,515 49 |
| Machinery and manufacturing appliances (gas), | 1,041 83 |
| Street mains (gas), | 7,063 25 |
| Meters (gas), | 1,528 31 |
| Due for gas, | 323 14 |
| Gas coal on hand, | 6 00 |
| Tar on hand, | 1 00 |
| Enrichers on hand, | 61 05 |
| Other gas materials on hand, | 153 06 |
| Gas fixtures on hand, | 128 20 |
| Real estate (electric), | 3,622 91 |
| Steam plant (electric), | 9,351 59 |
| Electric plant, | 11,361 05 |
| Lines, meters, lamps and globes (electric), | 14,893 15 |
| Patent rights, | 2,650 00 |
| Due for electric light and power, | 289 01 |
| Carbons on hand, | 36 85 |
| Oil and waste on hand, | 28 46 |
| Incandescent lamps on hand, | 27 16 |
| Horses, wagons, etc., | 235 00 |
| Sundry accounts due the company, | 80 24 |
| Office furniture, | 125 50 |
| Cash on hand, | 10,159 47 |
| Construction account, | 42 19 |
| Total assets, as per books of the company, | \$68,723 91 |

LIABILITIES.

| | |
|--|--------------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 13,500 00 |
| Unpaid bills, | 174 14 |
| Total liabilities, as per books of the company, | \$63,674 14 |
| Profit and loss balance, | 5,049 77 |
| | \$68,723 91 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$2,832 91 | |
| { electric, | 7,112 02 | |
| Income from sale of gas, | | \$3,935 01 |
| residuals, | | 15 75 |
| sale of electric light and power, | | 10,092 67 |
| Balance to profit and loss, { gas, | 1,117 85 | |
| { electric, | 2,980 65 | |
| | \$14,043 43 | \$14,043 43 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$4,742 37 |
| Balance of gas manufacturing account, | | 1,117 85 |
| Balance of electric manufacturing account, | | 2,980 65 |
| Dividends declared, | \$2,400 00 | |
| Interest paid, | 685 50 | |
| Depreciation, | 705 60 | |
| Balance June 30, 1893, | 5,049 77 | |
| | \$8,840 87 | \$8,840 87 |

SOUTH HADLEY FALLS ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|---|------------|
| Steam plant, | \$1,249 71 |
| Electric plant, | 5,672 38 |
| Lines, meters, lamps and globes, | 3,661 00 |
| Due for electric light and power, | 464 96 |
| Incandescent lamps on hand, | 50 00 |
| Other materials on hand, | 100 00 |

Total assets, as per books of the company, \$11,198 05

LIABILITIES.

| | |
|--------------------------|------------|
| Capital stock, | \$7,000 00 |
| Notes payable, | 3,962 12 |
| Unpaid bills, | 235 93 |

Total liabilities, as per books of the company, \$11,198 05

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$4,572 37 | |
| Income from sale of electric light and power, | | \$4,821 30 |
| Balance to profit and loss, | 248 93 | |
| | <u>\$4,821 30</u> | <u>\$4,821 30</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-----------------|-----------------|
| Balance of electric manufacturing account, | | \$248 93 |
| Interest paid, | \$248 93 | |
| | <u>\$248 93</u> | <u>\$248 93</u> |

SPENCER GAS COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate (gas), | \$22,583 28 |
| Machinery and manufacturing appliances (gas), | 76,105 76 |
| Street mains (gas), | 36,216 81 |
| Meters (gas), | 3,669 08 |
| Due for gas, | 3,339 95 |
| Gas coal on hand, | 221 25 |
| Enrichers on hand, | 163 32 |
| Purifying materials on hand, | 12 25 |
| Other gas materials on hand, | 707 56 |
| Stoves on hand, | 5,009 00 |
| Gas fixtures on hand, | 479 44 |
| Electric plant, | 24,619 62 |
| Lines, meters, lamps and globes (electric), } | |
| Due for electric light and power, | 449 19 |
| Carbons on hand, | 43 00 |
| Oil and waste on hand, | 49 25 |
| Globes on hand, | 3 30 |
| Tools, | 600 00 |
| Sundry accounts due the company, | 3,377 78 |

| | |
|-----------------------------|----------|
| Office furniture, | \$380 00 |
| Notes receivable, | 349 83 |

| | |
|--|---------------------|
| Total assets, as per books of the company, | \$178,379 67 |
| Profit and loss balance, | 7,160 56 |
| | <u>\$185,540 23</u> |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$85,000 00 |
| Bonds issued, | 85,000 00 |
| Unpaid bills, | 158 75 |
| Interest accrued, | 2,550 00 |
| Amounts due from the company, not included above, | 12,831 48 |

| | |
|---|---------------------|
| Total liabilities, as per books of the company, | <u>\$185,540 23</u> |
|---|---------------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Operating expenses, { gas, | \$8,992 95 | |
| { electric, | 4,486 14 | |
| Income from sale of gas, | | \$15,132 16 |
| other sources (gas), | | 409 02 |
| sale of electric light and power, | | 5,450 37 |
| Balance to profit and loss, { gas, | 6,548 23 | |
| { electric, | 964 23 | |
| | <u>\$20,991 55</u> | <u>\$20,991 55</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | \$8,384 55 | |
| Balance of gas manufacturing account, | | \$6,548 23 |
| Balance of electric manufacturing account, | | 964 23 |
| Rents, | | 770 00 |
| Other items of income, | | 24 00 |
| Interest paid, | 7,082 47 | |
| Balance June 30, 1893, | | 7,160 56 |
| | <u>\$15,467 02</u> | <u>\$15,467 02</u> |

SPRINGFIELD ELECTRIC.

(See UNITED ELECTRIC LIGHT COMPANY.)

SPRINGFIELD GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate, | \$172,556 69 |
| Machinery and manufacturing appliances, | 157,913 12 |
| Street mains, | 179,380 20 |
| Meters, | 33,005 34 |
| Due for gas, | 14,419 01 |
| Gas coal on hand, | 3,017 13 |
| Coke on hand, | 198 18 |
| Tar on hand, | 3,226 05 |
| Enrichers on hand, | 75 68 |
| Purifying materials on hand, | 101 60 |
| Other materials and gas engines, | 4,075 12 |
| Stoves on hand, | 1,150 00 |
| Gas burners on hand, | 787 77 |

| | | |
|--|--|---------------------|
| Real estate (steam), | | |
| Steam plant and fittings, } | | |
| Due for steam, | | \$64,069 45 |
| Fuel on hand (steam), | | 4,587 10 |
| Horses, wagons, etc., | | 635 72 |
| Sundry accounts due the company, | | 1,500 00 |
| Office furniture, | | 5,318 00 |
| Cash on hand, | | 965 00 |
| Notes receivable, | | 28,289 55 |
| | | 555 32 |
| Total assets, as per books of the company, | | <u>\$675,826 03</u> |

LIABILITIES.

| | | |
|---|--|---------------------|
| Capital stock, | | \$500,000 00 |
| Notes payable, | | 25,000 00 |
| Deposits, | | 875 56 |
| Extension reserve, | | 42,855 35 |
| Steam heating, | | 452 16 |
| Amounts due from the company, not included above, | | 3,622 48 |
| Total liabilities, as per books of the company, | | <u>\$572,805 55</u> |
| Profit and loss balance, | | 103,020 48 |
| | | <u>\$675,826 03</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|---------------------|---------------------|
| Operating expenses, | \$99,987 72 | |
| Income from sale of gas, | | \$147,322 57 |
| Income from residuals, | | 20,740 22 |
| Balance to profit and loss, | 68,075 07 | |
| | <u>\$168,062 79</u> | <u>\$168,062 79</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|---------------------|---------------------|
| Balance June 30, 1892, | | \$83,124 24 |
| Balance of gas manufacturing account, | | 68,075 07 |
| Interest received, | | 797 62 |
| Rents, | | 1,404 23 |
| Dividends declared, | \$40,000 00 | |
| Interest paid, | 2,169 37 | |
| Jobbing account, | 598 55 | |
| Extension reserve, | 7,612 66 | |
| Balance June 30, 1893, | 103,020 48 | |
| | <u>\$153,401 06</u> | <u>\$153,401 06</u> |

STOUGHTON GAS AND ELECTRIC COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate (gas), | \$5,000 00 |
| Machinery and manufacturing appliances (gas), | 2,510 58 |
| Street mains (gas), | 4,660 58 |
| Meters (gas), | 608 88 |
| Due for gas, | 147 88 |
| Steam plant (electric), | 2,900 00 |
| Electric plant, | 1,750 00 |
| Lines, meters, lamps and globes (electric), | 7,354 39 |
| Due for electric light and power, | 279 16 |
| Cash on hand, | 709 71 |
| Total assets, as per books of the company, | <u>\$25,921 18</u> |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$24,000 00 |
| Unpaid dividends, | 51 96 |
| Total liabilities, as per books of the company, | \$24,051 96 |
| Profit and loss balance, | 1,869 22 |
| | <hr/> |
| | \$25,921 18 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Operating expenses, { gas, | \$1,825 16 | |
| { electric, | 2,358 87 | |
| Income from sale of gas, | | \$2,633 56 |
| sale of electric light and power, | | 3,430 26 |
| Balance to profit and loss, { gas, | 808 40 | |
| { electric, | 1,071 39 | |
| | <hr/> | <hr/> |
| | \$6,063 82 | \$6,063 82 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | \$6,580 76 | |
| Balance of gas manufacturing account, | | \$808 40 |
| Balance of electric manufacturing account, | | 1,071 39 |
| Revaluation of real estate, | | 4,000 00 |
| Omitted from balance sheets of 1892 in accounts of electric lines, cash and bills for light, | | 7,674 35 |
| Dividends declared, | 1,440 00 | |
| Depreciation, gas plant, | 3,664 16 | |
| Balance June 30, 1893, | 1,869 22 | |
| | <hr/> | <hr/> |
| | \$13,554 14 | \$13,554 14 |

SUBURBAN LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|--------------|
| Real estate, | \$12,000 00 |
| Steam plant, | } 228,802 60 |
| Electric plant, | |
| Lines, meters, lamps and globes, | |
| Franchise, | 75,000 00 |
| Due for electric light and power, | 6,062 07 |
| Carbons on hand, | 195 00 |
| Oil and waste on hand, | 42 00 |
| Incandescent lamps on hand, | 4,247 23 |
| Globes on hand, | 50 00 |
| Other materials on hand, | 634 63 |
| Office furniture, | 692 5 |
| Cash on hand, | 723 58 |
| Insurance and taxes, unexpired, | 697 50 |
| Total assets, as per books of the company, | <hr/> |
| Profit and loss balance, | \$329,147 19 |
| | 2,928 11 |
| | <hr/> |
| | \$332,075 30 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$174,400 00 |
| Bonds issued, | 103,500 00 |
| Notes payable, | 6,875 00 |
| Unpaid bills, | 39,606 16 |
| Other amounts due from the company, | 7,694 14 |

Total liabilities, as per books of the company, \$332,075 30

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------|-------------|
| Operating expenses, | \$66,548 56 | |
| Income from sale of electric light and power, | | \$63,782 91 |
| other sources, | | 12,356 17 |
| Balance to profit and loss, | 9,590 52 | |
| | <hr/> | <hr/> |
| | \$76,139 08 | \$76,139 08 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | \$24,084 60 | |
| Balance of electric manufacturing account, | | \$9,590 52 |
| Revaluation of plant, | | 28,005 51 |
| Interest paid, | 4,271 55 | |
| Liabilities not included in balance sheet June 30, 1892, | 4,876 48 | |
| Discounts on bonds sold, | 6,800 00 | |
| Bad debts, | 491 51 | |
| Balance June 30, 1893, | | 2,928 11 |
| | <hr/> | <hr/> |
| | \$40,524 14 | \$40,524 14 |

TAUNTON ELECTRIC LIGHTING COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$15,238 67 |
| Steam plant, | 21,745 92 |
| Electric plant, | 30,132 33 |
| Lines, meters, lamps and globes, | 19,554 35 |
| Due for electric light and power, | 2,241 92 |
| Fuel on hand, | 12 00 |
| Carbons on hand, | 70 00 |
| Oil and waste on hand, | 20 00 |
| Incandescent lamps on hand, | 250 00 |
| Globes on hand, | 35 00 |
| Horses, wagons, etc., | 300 00 |
| Cash on hand, | 9,217 36 |

Total assets, as per books of the company, \$98,817 55

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$50,000 00 |
| Notes payable, | 25,000 00 |
| Unpaid bills, | 2,479 73 |

Total liabilities, as per books of the company, \$77,479 73

Profit and loss balance, 21,337 72

\$98,817 45

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$19,505 72 | |
| Income from sale of electric light and power, . . | | \$25,691 67 |
| Balance to profit and loss, | 6,185 95 | |
| | <u>\$25,691 67</u> | <u>\$25,691 67</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$17,579 84 |
| Balance of electric manufacturing account, . . . | | 6,185 95 |
| Other items of income, | | 1,955 15 |
| Dividends declared, | \$3,500 00 | |
| Interest paid, | 883 22 | |
| Balance June 30, 1893, | 21,337 72 | |
| | <u>\$25,720 94</u> | <u>\$25,720 94</u> |

TAUNTON GAS LIGHT COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$26,500 00 |
| Machinery and manufacturing appliances, | |
| Street mains, | 53,500 00 |
| Meters, | |
| Due for gas, | 14,746 76 |
| Gas coal on hand, | 473 28 |
| Coke on hand, | 7 00 |
| Tar on hand, | 2,080 00 |
| Enrichers on hand, | 22 40 |
| Purifying materials on hand, | 356 35 |
| Other materials on hand, | 266 00 |
| Stoves on hand, | 1,149 92 |
| Gas fixtures on hand, | 2,992 90 |
| Lungren lamps, | 516 91 |
| Ammonia, | 23 00 |
| Sundry accounts due the company, | 3,093 34 |
| Cash on hand, | 2,732 49 |
| Total assets, as per books of the company, | <u>\$103,460 35</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$80,000 00 |
| Notes payable, | 7,500 00 |
| Deposits, | 176 00 |
| Total liabilities, as per books of the company, | <u>\$87,676 00</u> |
| Profit and loss balance, | 20,784 35 |
| | <u>\$108,460 35</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$48,648 71 | |
| Income from sale of gas, | | \$61,925 06 |
| residuals, | | 6,170 95 |
| other sources, | | 821 27 |
| Balance to profit and loss, | 19,768 56 | |
| | <u>\$68,417 27</u> | <u>\$68,417 27</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$26,066 49 |
| Balance of gas manufacturing account, | | 19,768 56 |
| Rents, | | 150 00 |
| Dividends declared, | \$8,000 00 | |
| Depreciation, | 17,200 70 | |
| Balance June 30, 1893, | 20,784 35 | |
| | <u>\$45,985 05</u> | <u>\$45,985 05</u> |

TURNER'S FALLS.

(See FRANKLIN ELECTRIC LIGHT COMPANY.)

UNION ELECTRIC LIGHT COMPANY (FRANKLIN).

ASSETS.

| | |
|---|--------------------|
| Real estate, | \$4,833 50 |
| Steam plant, | 3,862 00 |
| Electric plant, | 12,588 91 |
| Lines, meters, | 26,348 95 |
| Transformers, | 2,740 61 |
| Due for electric light and power, | 796 23 |
| Electric fixtures on hand, } Horses, wagons, etc., } | 371 62 |
| Office furniture, | 93 05 |
| Cash on hand, | 1,821 14 |
| Advance interest and unexpired insurance, | 103 33 |
| Total assets, as per books of the company, | <u>\$53,559 34</u> |
| Profit and loss balance, | 228 39 |

\$53,787 73

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$20,000 00 |
| Bonds issued, | 30,000 00 |
| Unpaid bills, | 3,037 73 |
| Unpaid dividends, | 300 00 |
| Interest due but not paid, | 450 00 |
| Total liabilities, as per books of the company, | <u>\$53,787 73</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$7,956 85 | |
| Income from sale of electric light and power, | | \$8,782 48 |
| other sources, electric, | | 54 25 |
| Balance to profit and loss, | 879 88 | |
| | <u>\$8,836 73</u> | <u>\$8,836 73</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$1,604 82 | |
| Balance of electric manufacturing account, | | \$879 88 |
| Sale of supplies, | | 59 25 |
| Revaluation of plant, | | 2,637 76 |
| Dividends declared, | 300 00 | |
| Interest paid, | 1,512 94 | |
| Cost of reorganization, | 387 52 | |
| Balance June 30, 1893, | | 228 39 |
| | <hr/> | <hr/> |
| | \$3,805 28 | \$3,805 28 |

UNITED ELECTRIC LIGHT COMPANY (SPRINGFIELD).

ASSETS.

| | |
|--|--------------|
| Real estate, | \$102,319 62 |
| Steam plant, | 134,755 85 |
| Electric plant, | 170,498 23 |
| Lines, meters, lamps and globes, | 121,406 60 |
| Due for electric light and power, | 17,461 12 |
| Oil and waste on hand, | 28 40 |
| Incandescent lamps on hand, | 3,851 41 |
| Globes on hand, | 422 06 |
| Motors on hand, | 34,562 78 |
| Horses, wagons, etc., | 456 00 |
| Sundry accounts due the company, | 3,434 57 |
| Office furniture, | 934 12 |
| Cash on hand, | 2,730 70 |
| Investments, | 123,606 00 |
| | <hr/> |
| Total assets, as per books of the company, | \$716,467 46 |

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$500,000 00 |
| Notes payable, | 160,000 00 |
| Unpaid bills, | 7,198 69 |
| Depreciation fund, | 40,000 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$707,198 69 |
| Profit and loss balance, | 9,268 77 |
| | <hr/> |
| | \$716,467 46 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Operating expenses, | \$89,117 70 | |
| Income from sale of electric light and power, | | \$162,587 83 |
| Balance to profit and loss, | 73,470 13 | |
| | <hr/> | <hr/> |
| | \$162,587 83 | \$162,587 83 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | | \$14,462 20 |
| Balance of electric manufacturing account, . . . | | 73,470 13 |
| Rents, | | 722 00 |
| Other items of income, | | 30 42 |
| Dividends declared, | \$30,500 00 | |
| Interest paid, | 8,915 98 | |
| Depreciation, | 40,000 00 | |
| Balance June 30, 1893, | 9,268 77 | |
| | <u>\$88,684 75</u> | <u>\$88,684 75</u> |

UXBRIDGE AND NORTHBRIDGE ELECTRIC COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$6,395 68 |
| Steam plant, | 8,708 64 |
| Electric plant, | 10,102 91 |
| Lines, meters, lamps and globes, | 37,467 87 |
| Fuel on hand, | 501 75 |
| Carbons on hand, | 30 00 |
| Oil and waste on hand, | 76 69 |
| Incandescent lamps on hand, | 495 22 |
| Globes on hand, | 15 00 |
| Other materials on hand, | 617 05 |
| Electric fixtures on hand, | 104 00 |
| Horses, wagons, etc., | 999 04 |
| Sundry accounts due the company, | 1,152 36 |
| Office furniture, | 54 03 |
| Cash on hand, | 540 10 |
| Total assets, as per books of the company, | <u>\$67,260 34</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$39,200 00 |
| Notes payable, | 25,000 00 |
| Unpaid bills, | 1,292 16 |
| Total liabilities, as per books of the company, | <u>\$65,492 16</u> |
| Profit and loss balance, | 1,768 18 |

\$67,260 34

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$6,948 77 | |
| Income from sale of electric light and power, . . . | | \$9,587 42 |
| Balance to profit and loss, | 2,638 65 | |
| | <u>\$9,587 42</u> | <u>\$9,587 42</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$1,072 17 |
| Balance of electric manufacturing account, . . . | | 2,638 65 |
| Wiring account, | | 120 60 |
| Dividends declared, | \$768 00 | |
| Interest paid, | 1,295 24 | |
| Balance June 30, 1893, | 1,768 18 | |
| | <u>\$3,831 42</u> | <u>\$3,831 42</u> |

WAKEFIELD.

(See CITIZENS' GAS LIGHT COMPANY OF READING, ETC.)

WALTHAM GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate (gas), | \$19,904 37 |
| Machinery and manufacturing appliances (gas), | 80,572 49 |
| Street mains (gas), | 50,800 00 |
| Meters (gas), | 6,000 00 |
| Due for gas, | 7,464 75 |
| Gas coal on hand, | 5 60 |
| Coke on hand, | 8 00 |
| Tar on hand, | 1,765 17 |
| Purifying materials on hand, | 119 00 |
| Other gas materials on hand, | 1,136 96 |
| Stoves on hand, | 311 93 |
| Gas fixtures on hand, | 326 83 |
| Real estate (electric), | 13,265 92 |
| Steam plant (electric), | 38,138 39 |
| Electric plant, | 30,684 41 |
| Lines, meters, lamps and globes (electric), | 36,825 27 |
| Due for electric light and power, | 5,119 03 |
| Fuel on hand (electric), | 509 55 |
| Carbons on hand, | 201 50 |
| Oil and waste on hand, | 26 92 |
| Incandescent lamps on hand, | 278 05 |
| Globes on hand, | 21 18 |
| Other electric materials on hand, | 1,581 64 |
| Electric fixtures on hand, | 7,186 97 |
| Horses, wagons, etc., | 697 05 |
| Sundry accounts due the company, | 2,698 07 |
| Office furniture, | 1,172 63 |
| Cash on hand, | 351 22 |
| Total assets, as per books of the company, | \$307,162 90 |

LIABILITIES.

| | |
|--------------------------|--------------|
| Capital stock, | \$140,000 00 |
| Bonds issued, | 46,500 00 |
| Notes payable, | 19,500 00 |

| | |
|---|--------------|
| Total liabilities, as per books of the company, | \$206,000 00 |
| Profit and loss balance, | 101,162 90 |

\$307,162 90

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|--------------|--------------|
| Operating expenses, { gas, | \$39,864 45 | |
| { electric, | 34,849 56 | |
| Income from sale of gas, | | \$48,455 77 |
| residuals, | | 8,101 99 |
| sale of electric light and power, | | 45,274 79 |
| Balance to profit and loss, { gas, | 16,698 31 | |
| { electric, | 10,425 23 | |
| | \$101,832 55 | \$101,832 55 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|---------------------|---------------------|
| Balance June 30, 1892, | | \$88,529 87 |
| Balance of gas manufacturing account, | | 16,693 31 |
| Balance of electric manufacturing account, | | 10,425 23 |
| Electric jobbing account, | | 125 73 |
| Gas jobbing account, | | 141 90 |
| Dividends declared, | \$10,500 00 | |
| Interest paid, | 3,214 04 | |
| Depreciation, | 976 18 | |
| Other items, | 62 92 | |
| Balance June 30, 1893, | 101,162 90 | |
| | <u>\$115,916 04</u> | <u>\$115,916 04</u> |

WARE ELECTRIC COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$6,505 23 |
| Steam plant, | 7,533 00 |
| Electric plant, | 4,934 00 |
| Lines, meters, lamps and globes, | 17,861 02 |
| Due for electric light and power, | 566 26 |
| Fuel on hand, | 20 00 |
| Carbons on hand, | 15 00 |
| Oil and waste on hand, | 10 00 |
| Incandescent lamps on hand, | 20 00 |
| Globes on hand, | 5 00 |
| Other materials on hand, | 250 00 |
| Office furniture and tools, | 256 80 |
| Cash on hand, | 150 61 |
| Total assets, as per books of the company, | <u>\$38,126 92</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$20,000 00 |
| Notes payable, | 16,500 00 |
| Reserved fund, | 605 89 |
| Total liabilities, as per books of the company, | <u>\$37,105 89</u> |
| Profit and loss balance, | 1,021 03 |
| | <u>\$38,126 92</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$4,598 50 | |
| Income from sale of electric light and power, | | \$7,134 94 |
| other sources, | | 73 80 |
| Balance to profit and loss, | 2,610 24 | |
| | <u>\$7,208 74</u> | <u>\$7,208 74</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1893, | | \$619 50 |
| Balance of electric manufacturing account, . . . | | 2,610 24 |
| Other items of income, | | 52 71 |
| Dividends declared, | \$1,200 00 | |
| Interest paid, | 861 42 | |
| Depreciation, | 200 00 | |
| Balance June 30, 1893, | 1,021 03 | |
| | <hr/> | <hr/> |
| | \$3,282 45 | \$3,282 45 |

WEBSTER ELECTRIC COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate (gas), | \$8,500 00 |
| Machinery and manufacturing appliances (gas), | 10,107 48 |
| Street mains (gas), | 10,000 00 |
| Meters (gas), | 2,046 53 |
| Due for gas, | 366 57 |
| Gas coal on hand, | 51 00 |
| Coke on hand, | 25 00 |
| Tar on hand, | 75 00 |
| Gas on hand, | 7 50 |
| Purifying materials on hand, | 1 90 |
| Stoves on hand, | 30 20 |
| Tools on hand, | 138 95 |
| Real estate (electric), | 9,771 14 |
| Steam plant (electric), | 11,634 81 |
| Electric plant, | 16,087 10 |
| Lines, meters, lamps and transformers (electric), | 12,538 70 |
| Due for electric light and power, | 833 34 |
| Fuel on hand (electric), | 37 60 |
| Carbons on hand, | 46 00 |
| Oil and waste on hand, | 14 85 |
| Incandescent lamps on hand, | 305 90 |
| Globes on hand, | 38 33 |
| Other electric materials on hand, | 99 25 |
| Office furniture, | 131 50 |
| Cash on hand, | 504 80 |
| Investments, | 98 64 |
| | <hr/> |
| Total assets, as per books of the company, | \$83,492 09 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$45,000 00 |
| Bonds issued, | 30,000 00 |
| Notes payable, | 2,875 00 |
| Unpaid bills, | 568 00 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$78,443 00 |
| Profit and loss balance, | 5,049 09 |
| | <hr/> |
| | \$83,492 09 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Operating expenses, { gas, | \$3,917 32 | |
| { electric, | 6,116 31 | |
| Income from sale of gas, | | \$3,966 00 |
| residuals, | | 254 00 |
| other sources, gas, | | 94 63 |
| sale of electric light and power, | | 9,540 79 |
| Balance to profit and loss, { gas, | 397 31 | |
| { electric, | 3,425 48 | |
| | <hr/> | <hr/> |
| | \$13,855 42 | \$13,855 42 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | | \$4,700 25 |
| Balance of gas manufacturing account, | | 397 31 |
| Balance of electric manufacturing account, | | 3,425 48 |
| Other items of income, | | 45 74 |
| Dividends declared, | \$1,575 00 | |
| Interest paid, | 1,944 69 | |
| Balance June 30, 1893, | 5,049 09 | |
| | <hr/> | <hr/> |
| | \$8,568 78 | \$8,568 78 |

WESTBOROUGH ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|-------------|
| Real estate, | \$5,810 13 |
| Steam plant, | 7,181 00 |
| Electric plant, | 10,810 60 |
| Lines, meters, lamps and globes, | 16,873 23 |
| Franchise, | 4,500 00 |
| Due for electric light and power, | 1,026 99 |
| Carbons on hand, | 32 09 |
| Oil and waste on hand, | 45 25 |
| Incandescent lamps on hand, | 287 35 |
| Globes on hand, | 21 50 |
| Other materials on hand, | 517 86 |
| Sundry accounts due the company, | 309 77 |
| Office furniture, | 150 09 |
| Cash on hand, | 35 32 |
| | <hr/> |
| Total assets, as per books of the company, | \$47,601 00 |

LIABILITIES.

| | |
|---|-------------|
| Capital stock, | \$25,000 00 |
| Notes payable, | 19,400 00 |
| Unpaid bills, | 1,471 62 |
| Reserved fund, | 272 73 |
| | <hr/> |
| Total liabilities, as per books of the company, | \$46,144 35 |
| Profit and loss balance, | 1,456 65 |
| | <hr/> |
| | \$47,601 00 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$5,861 13 | |
| Income from sale of electric light and power, | | \$7,252 82 |
| Balance to profit and loss, | 1,391 69 | |
| | <u>\$7,252 82</u> | <u>\$7,252 82</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$883 67 |
| Balance of electric manufacturing account, | | 1,391 69 |
| Rents, | | 110 00 |
| Other items of income, | | 164 91 |
| Interest paid, | \$1,038 59 | |
| Other items, | 55 03 | |
| Balance June 30, 1893, | 1,456 65 | |
| | <u>\$2,550 27</u> | <u>\$2,550 27</u> |

WESTFIELD GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------------|
| Real estate (gas), | \$17,831 62 |
| Machinery and manufacturing appliances (gas), | 14,239 55 |
| Street mains (gas), | 15,052 54 |
| Meters (gas), | 2,230 96 |
| Due for gas, | 3,171 30 |
| Gas coal on hand, | 71 25 |
| Services, | 1,808 77 |
| Buildings, | 1,170 66 |
| Enrichers on hand, | 209 45 |
| Purifying materials on hand, | 82 00 |
| Holder, | 464 80 |
| Stoves on hand, | 243 75 |
| Gas fixtures on hand, | 134 28 |
| Real estate (electric), | 9,406 01 |
| Steam plant (electric), | 6,162 88 |
| Electric plant, | 6,271 60 |
| Lines, meters, lamps and globes (electric), | 10,853 35 |
| Converters, | 1,548 03 |
| Due for electric light and power, | 1,019 60 |
| Fuel on hand (electric), | 34 00 |
| Carbons on hand, | 109 65 |
| Oil and waste on hand, | 20 95 |
| Electric supplies on hand, | 33 80 |
| Sundry accounts due the company, | 89 29 |
| Cash on hand, | 2,059 63 |
| Total assets, as per books of the company, | <u>\$94,359 72</u> |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$54,000 00 |
| Notes payable, | 21,500 00 |

| | |
|---|-------------------|
| Unpaid bills, | \$556 36 |
| Depreciation fund, | 4,579 79 |
| Total liabilities, as per books of the company, | \$50,636 15 |
| Profit and loss balance, | 13,723 57 |
| | <hr/> \$94,360 72 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Operating expenses, { gas, | \$12,338 28 | |
| { electric, | 6,594 54 | |
| Income from sale of gas, | | \$15,388 00 |
| residuals, | | 1,198 09 |
| sale of electric light and power, | | 10,129 63 |
| Balance to profit and loss, { gas, | 4,247 81 | |
| { electric, | 3,535 09 | |
| | <hr/> \$26,715 72 | <hr/> \$26,715 72 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------------|-------------------|
| Balance June 30, 1892, | | \$13,925 74 |
| Balance of gas manufacturing account, | | 4,247 81 |
| Balance of electric manufacturing account, | | 3,535 09 |
| Rents, | | 126 00 |
| Dividends declared, | \$4,320 00 | |
| Interest paid, | 965 67 | |
| Depreciation, | 2,744 38 | |
| Other items, | 81 02 | |
| Balance June 30, 1893, | 13,723 57 | |
| | <hr/> \$21,834 64 | <hr/> \$21,834 64 |

WEYMOUTH LIGHT AND POWER COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$13,153 79 |
| Steam plant, | 17,242 01 |
| Electric plant, | 27,281 04 |
| Lines, meters, lamps and globes, | 90,303 94 |
| Due for electric light and power, | 4,119 55 |
| Fuel on hand, | 73 40 |
| Carbons on hand, | 65 00 |
| Oil and waste on hand, | 49 01 |
| Incandescent lamps on hand, | 94 75 |
| Other materials on hand, | 190 64 |
| Horses, wagons, etc., | 614 20 |
| Sundry accounts due the company, | 20,664 95 |
| Office furniture, tools, | 208 61 |
| Cash on hand, | 1,138 70 |
| Unexpired insurance, | 257 12 |
| Total assets, as per books of the company, | <hr/> \$175,456 71 |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$75,000 00 |
| Bonds issued, | 75,000 00 |
| Notes payable, | 8,156 01 |

| | |
|--------------------------------------|------------|
| Unpaid bills, | \$6,393 35 |
| Interest due but not paid, | 6,170 00 |

| | |
|--|--------------|
| Total liabilities as per books of the company, | \$170,719 36 |
| Profit and loss balance, | 4,737 35 |

\$175,456 71

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|-------------------|-------------------|
| Operating expenses, | \$14,976 00 | |
| Income from sale of electric light and power, | | \$21,815 18 |
| other sources, | | 139 29 |
| Balance to profit and loss, | 6,978 47 | |
| | <hr/> \$21,954 47 | <hr/> \$21,954 47 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------------|------------------|
| Balance June 30, 1892, | | \$1,928 15 |
| Balance of electric manufacturing account, | | 6,978 47 |
| Other items of income, | | 481 07 |
| Interest paid, | \$4,650 34 | |
| Balance June 30, 1893, | 4,737 35 | |
| | <hr/> \$9,387 69 | <hr/> \$9,387 69 |

WHITMAN ELECTRIC COMPANY.

ASSETS.

| | |
|--|------------|
| Real estate, | \$5,693 39 |
| Steam plant, | 15,797 20 |
| Electric plant, | 15,070 82 |
| Lines, meters, lamps and transformers, | 22,251 11 |
| Due for electric light and power, | 1,421 41 |
| Carbons on hand, | 80 00 |
| Oil and waste on hand, | 46 25 |
| Incandescent lamps on hand, | 257 50 |
| Globes on hand, | 6 00 |
| Other materials on hand, | 421 68 |
| Electric fixtures on hand, | 144 66 |
| Horses, wagons, etc., | 150 00 |
| Sundry accounts due the company, | 6 75 |
| Office furniture, | 14 00 |
| Unexpired insurance, etc., | 60 26 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$61,421 03 |
| Profit and loss balance, | 1,680 74 |

\$63,101 77

LIABILITIES.

| | |
|--------------------------------------|-------------|
| Capital stock, | \$35,000 00 |
| Bonds issued, | 25,000 00 |
| Unpaid bills, | 2,725 06 |
| Interest due but not paid, | 375 00 |
| Reserved fund, | 1 72 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$63,101 77 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------------|------------------|
| Operating expenses, | \$8,437 72 | |
| Income from sale of electric light and power, . . . | | \$7,639 18 |
| other sources, | | 65 33 |
| Balance to profit and loss, | | 733 21 |
| | <hr/> \$8,437 72 | <hr/> \$8,437 72 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------------|------------------|
| Balance June 30, 1892, | | \$199 92 |
| Balance of electric manufacturing account, . . . | \$733 21 | |
| Interest paid, | 947 45 | |
| Other items, | 200 00 | |
| Balance June 30, 1893, | | 1,680 74 |
| | <hr/> \$1,880 66 | <hr/> \$1,880 66 |

WILLIAMSTOWN GAS COMPANY.

ASSETS.

| | | |
|--|--|-------------------|
| Real estate, | | |
| Machinery and manufacturing appliances, | | \$30,620 75 |
| Street mains, | | |
| Meters, | | 505 18 |
| Due for gas, | | 388 27 |
| Oil on hand, | | 53 62 |
| Wood on hand, | | 118 00 |
| Other materials and tools on hand, | | 567 30 |
| Gas fixtures on hand, | | 86 39 |
| Horses, wagons, etc., | | 83 50 |
| Sundry accounts due the company, | | 168 16 |
| Cash on hand, | | 22 38 |
| Investments, | | 2,234 79 |
| Total assets, as per books of the company, | | <hr/> \$34,868 34 |

LIABILITIES.

| | | |
|---|--|-------------------|
| Capital stock, | | \$20,000 00 |
| Bonds issued, | | 10,000 00 |
| Notes payable, | | 4,449 11 |
| Unpaid bills, | | 155 75 |
| Total liabilities, as per books of the company, | | <hr/> \$34,604 86 |
| Profit and loss balance, | | 263 48 |
| | | <hr/> \$34,868 34 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|------------------|------------------|
| Operating expenses, | \$2,261 48 | |
| Income from sale of gas, | | \$3,717 47 |
| Balance to profit and loss, | 1,455 99 | |
| | <hr/> \$3,717 47 | <hr/> \$3,717 47 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Balance June 30, 1892, | \$807 75 | |
| Balance of gas manufacturing account, | | \$1,455 99 |
| Jobbing account, | | 727 00 |
| Other items of income, | | 2 40 |
| Interest paid, | 950 76 | |
| Depreciation, | 104 76 | |
| Other items, | 58 64 | |
| Balance June 30, 1893, | 263 48 | |
| | <hr/> | <hr/> |
| | \$2,185 39 | \$2,185 39 |

WINCHENDON ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

| | |
|---|------------|
| Steam plant, | \$1,359 76 |
| Electric plant, | 10,710 46 |
| Lines, meters, lamps and globes, | 15,891 95 |
| Due for electric light and power, | 468 67 |
| Carbons on hand, | 63 00 |
| Oil and waste on hand, | 30 06 |
| Other materials on hand, | 403 86 |
| Horses, wagons, etc., | 180 15 |
| Sundry accounts due the company, | 55 36 |
| Cash on hand, | 58 50 |
| Insurance, | 81 25 |

| | |
|--|-------------|
| Total assets, as per books of the company, | \$29,303 02 |
| Profit and loss balance, | 1,013 17 |

LIABILITIES.

| | |
|--------------------------|-------------|
| Capital stock, | \$12,000 00 |
| Bonds issued, | 12,000 00 |
| Notes payable, | 6,000 00 |
| Unpaid bills, | 316 19 |

| | |
|---|-------------|
| Total liabilities, as per books of the company, | \$30,316 19 |
|---|-------------|

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|------------|------------|
| Operating expenses, | \$4,437 15 | |
| Income from sale of electric light and power, | | \$5,400 26 |
| other sources, | | 129 94 |
| Balance to profit and loss, | 1,093 05 | |
| | <hr/> | <hr/> |
| | \$5,530 20 | \$5,530 20 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|------------|------------|
| Balance June 30, 1892, | \$1,217 89 | |
| Balance of electric manufacturing account, | | \$1,093 05 |
| Interest paid, | 888 33 | |
| Balance June 30, 1893, | | 1,013 17 |
| | <hr/> | <hr/> |
| | \$2,106 22 | \$2,106 22 |

WOBURN ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|--|---------------------|
| Real estate, | \$22,640 53 |
| Steam plant, | 41,201 97 |
| Electric plant, | 63,792 83 |
| Lines, meters, lamps and globes, | 157,476 90 |
| Patent rights, | 21,000 00 |
| Due for electric light and power, | 5,597 89 |
| Carbons on hand, | 2,594 01 |
| Oil and waste on hand, | |
| Incandescent lamps on hand, | |
| Globes on hand, | |
| Other materials on hand, | |
| Motors on hand, | |
| Electric fixtures on hand, | 305 60 |
| Horses, wagons, etc., | |
| Office furniture, | |
| Cash on hand, | 27 00 |
| Notes and accounts receivable, | 12,052 65 |
| Total assets, as per books of the company, | \$326,689 38 |
| Profit and loss balance, | 18,916 04 |
| | <u>\$345,605 42</u> |

LIABILITIES.

| | |
|---|---------------------|
| Capital stock, | \$120,000 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 107,183 56 |
| Unpaid bills, | 18,421 86 |
| Total liabilities, as per books of the company, | <u>\$345,605 42</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Operating expenses, | \$38,680 07 | |
| Income from sale of electric light and power, | | \$41,485 27 |
| Balance to profit and loss, | 2,805 20 | |
| | <u>\$41,485 27</u> | <u>\$41,485 27</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|--------------------|--------------------|
| Balance June 30, 1892, | \$28 31 | |
| Balance of electric manufacturing account, | | \$2,805 20 |
| Dividends declared, | 1,200 00 | |
| Interest, | 11,101 54 | |
| Depreciation, | 9,391 39 | |
| Balance June 30, 1893, | | 18,916 04 |
| | <u>\$21,721 24</u> | <u>\$21,721 24</u> |

WOBURN GAS LIGHT COMPANY.

ASSETS.

| | |
|--|--------------------|
| Real estate, | \$9,500 00 |
| Machinery and manufacturing appliances, | 28,000 00 |
| Street mains, | 28,753 06 |
| Meters, | 8,000 00 |
| Due for gas, | 1,887 92 |
| Gas coal on hand, | 593 75 |
| Coke on hand, | 160 00 |
| Tar on hand, | 612 00 |
| Enrichers on hand, | 250 00 |
| Purifying materials on hand, | 6 75 |
| Sundry accounts due the company, | 270 00 |
| Office furniture, | 140 25 |
| Cash on hand, | 7,126 29 |
| Investments, | 600 00 |
| Total assets, as per books of the company, | <u>\$80,790 02</u> |

LIABILITIES.

| | |
|---|--------------------|
| Capital stock, | \$45,100 00 |
| Deposits, | 30 00 |
| Total liabilities, as per books of the company, | <u>\$45,130 00</u> |
| Profit and loss balance, | 35,660 02 |
| | <u>\$80,790 02</u> |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------------|--------------------|
| Operating expenses, | \$11,376 88 | |
| Income from sale of gas, | | \$15,037 43 |
| residuals, | | 2,181 20 |
| other sources, | | 26 24 |
| Balance to profit and loss, | 5,867 99 | |
| | <u>\$17,244 87</u> | <u>\$17,244 87</u> |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------------|--------------------|
| Balance June 30, 1892, | | \$45,210 11 |
| Balance of gas manufacturing account, | | 5,867 99 |
| Interest received, | | 1,021 74 |
| Jobbing account, | | 247 18 |
| Dividends declared, | \$16,687 00 | |
| Balance June 30, 1893, | 35,660 02 | |
| | <u>\$52,347 02</u> | <u>\$52,347 02</u> |

WORCESTER ELECTRIC LIGHT COMPANY.

ASSETS.

| | |
|---|-------------|
| Real estate, | \$79,901 54 |
| Steam plant, | 61,111 70 |
| Electric plant, | 89,002 94 |
| Lines, meters, lamps and globes, | 81,352 97 |
| Due for electric light and power, | 12,247 32 |
| Fuel on hand, | 637 00 |

| | |
|--|------------|
| Carbons on hand, | \$2,413 00 |
| Oil and waste on hand, | 85 85 |
| Incandescent lamps on hand, | 717 75 |
| Globes on hand, | 369 34 |
| Other materials on hand, | 2,525 15 |
| Electric fixtures on hand, | 2,331 88 |
| Horses, wagons, etc., | 755 25 |
| Sundry accounts due the company, | 1,147 11 |
| Office furniture, | 1,223 68 |
| Cash on hand, | 12,078 42 |

Total assets, as per books of the company, \$347,900 90

LIABILITIES.

| | |
|--------------------------|--------------|
| Capital stock, | \$200,000 00 |
| Bonds issued, | 100,000 00 |
| Unpaid bills, | 4,379 48 |

Total liabilities, as per books of the company, \$304,379 48
Profit and loss balance, 43,521 42

\$347,900 90

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Operating expenses, | \$64,874 71 | |
| Income from sale of electric light and power, | | \$124,554 63 |
| Balance to profit and loss, | 59,679 92 | |
| | \$124,554 63 | \$124,554 63 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|--|-------------|-------------|
| Balance June 30, 1892, | | \$27,898 50 |
| Balance of electric manufacturing account, | | 59,679 92 |
| Jobbing account, | | 580 93 |
| Other items of income, | | 100 00 |
| Dividends declared, | \$16,000 00 | |
| Interest paid, | 4,936 01 | |
| Depreciation, | 23,801 92 | |
| Balance June 30, 1893, | 43,521 42 | |
| | \$88,259 35 | \$88,259 35 |

WORCESTER GAS LIGHT COMPANY.

ASSETS.

| | |
|---|--------------|
| Real estate, | \$141,360 00 |
| Machinery and manufacturing appliances, | 265,716 35 |
| Street mains, | 240,310 91 |
| Meters, | 21,677 61 |
| Due for gas, | 664 15 |
| Gas coal on hand, | 11,028 19 |
| Coke on hand, | 1,237 50 |
| Tar on hand, | 1,650 00 |
| Enrichers on hand, | 1,206 11 |
| Stoves on hand, | 1,700 00 |
| Gas fixtures on hand, } | |
| Cash on hand, | 2,541 15 |
| Investments, | 3,332 50 |

Total assets, as per books of the company, \$692,444 47

LIABILITIES.

| | |
|---|--------------|
| Capital stock, | \$500,000 00 |
| Bonds issued, | 100,000 00 |
| Notes payable, | 30,000 00 |
| Deposits, | 2,498 76 |
| Unpaid dividends, | 10,036 00 |
| <hr/> | |
| Total liabilities, as per books of the company, | \$642,534 76 |
| Profit and loss balance, | 49,909 71 |
| <hr/> | |
| | \$692,444 47 |

MANUFACTURING ACCOUNT.

| | Dr. | Cr. |
|---------------------------------------|--------------|--------------|
| Operating expenses, | \$153,824 30 | |
| Income from sale of gas, | | \$220,423 73 |
| residuals, | | 12,310 26 |
| other sources, | | 108 50 |
| Balance to profit and loss, | 79,018 19 | |
| <hr/> | | <hr/> |
| | \$232,842 49 | \$232,842 49 |

PROFIT AND LOSS ACCOUNT.

| | Dr. | Cr. |
|---|--------------|--------------|
| Balance June 30, 1892, | | \$49,564 13 |
| Balance of gas manufacturing account, | | 79,018 19 |
| Interest received, | | 419 07 |
| Sale of stoves and fixtures, | | 362 16 |
| Other items of income, | | 155 17 |
| Dividends declared, | \$40,000 00 | |
| Interest paid, | 7,154 52 | |
| Depreciation, | 32,454 48 | |
| Balance June 30, 1893, | 49,909 71 | |
| <hr/> | | <hr/> |
| | \$129,518 71 | \$129,518 71 |

APPENDIX B.

[CHAP. 454, ACTS OF 1893.]

An Act relative to the Establishment of Municipal Gas and Electric Lighting Plants.

Be it enacted, etc., as follows:

SECTION 1. In case of the purchase by a city or town, under and in pursuance of the provisions of chapter three hundred and seventy of the acts of the year eighteen hundred and ninety-one, of a gas or electric light plant, or both, having mains, poles, wires or other distributing apparatus, lying or being in any adjoining city or town, said purchasing city or town shall have the right at its election, if there be no other private company engaged in the same kind of lighting business in such adjoining city or town, to purchase the outlying mains, poles, wires and other distributing apparatus in any such adjoining city or town, in the manner and subject to the provisions specified in sections twelve, thirteen and fourteen of said chapter.

SECTION 2. Any city or town having acquired a main gas works or central electric lighting station, and having acquired, as hereinbefore provided, outlying plant, means of distribution or property, in an adjoining city or town, used for the supply or distribution from such works or station to said city or town or inhabitants thereof, of gas or electricity, may thereafter manufacture, sell, distribute and supply to said city or town or inhabitants thereof, gas, if such outlying plant be a gas plant, or electricity, if it be an electric light plant; and shall succeed to, have and enjoy in said city or town, the same rights and franchises respecting such sale and distribution and extensions of its plant as the person, firm or corporation selling such outlying plant would have had if such sale had not been made, and be subject to the same limitations and obligations in the use and exercise of such rights and franchises; and such adjoining city or town within the limits of which such

outlying plant is located shall, if it shall establish a gas or electric lighting plant of its own, under the provisions of said chapter three hundred and seventy, be held to purchase and shall purchase the plant and property owned by the other city or town and used for like purpose within its limits, under the provisions of sections twelve, thirteen and fourteen of said chapter, in like manner as if the same were the plant of a private person, firm or corporation : *provided, further*, that in such case the city or town owning such outlying plant or property shall have no right to refuse to sell the same to the city or town within the limits of which the same is located, when requested thereby, but shall, within thirty days after a demand therefor, filed with its clerk by the latter city or town, file with the clerk of the latter city or town a schedule of said property and plant located within the limits of the latter, as provided for in said section thirteen ; and thereafter said city or town owning the same shall sell, and said city or town within the limits of which the same is located shall buy, the same, under the provisions of said sections twelve, thirteen and fourteen ; and thereafter the rights of the selling city or town to maintain a gas or electric light plant, or to sell gas or electricity within the limits of the purchasing city or town, shall cease and determine as to the plant sold.

SECTION 3. When the first of the two votes provided for in section seven of this act shall have been passed in any city, or the first of the two votes provided for in section three of said chapter three hundred and seventy shall have been passed in any town, any person, firm or corporation owning a plant in such city or town, of the nature of that to be established if the city or town shall complete its decision, and desiring to retain the right to enforce the obligation of such city or town to purchase such plant, under section thirteen of said chapter, shall, within thirty days after written request therefor, authorized by the city council and made by the mayor, if such plant be in a city, or authorized and made by the selectmen, if in a town, make and file with the clerk of the city or town wherein the central lighting plant is located, a detailed statement of all the property and plant of such person, firm or corporation then existing, which such person, firm or corporation may propose to sell to such city or town if it shall

complete its decision to establish a plant, with the terms of sale proposed therefor. If any of said plant or property lies or is in an adjoining city or town which, under the terms of section one of this act, the city or town would after its said decision have the right to buy, a separate schedule of the plant or property in each adjoining city or town shall be filed as aforesaid, with the terms of sale proposed therefor; and such person, firm or corporation filing such schedule in a city shall, at all reasonable times thereafter, allow examinations of all the property scheduled or used in business in connection with the scheduled property, to the mayor thereof and any committee of the city council selected by him, with any experts deemed by him necessary to determine the value of such property, and submit to inspection such property when called for by said mayor; and the same examination and inspection shall be allowed to the selectmen of any town wherein such schedule is filed, and to such experts selected by them. The reasonable expenses of making such detailed statement or caused by such examination or inspection shall be paid by the city or town requesting the same.

SECTION 4. The city or town required by the party filing the schedule to make the purchase, as provided in section three of this act, may, at any time within sixty days after the filing thereof, by vote of its city council, in case of a city, or of its legal voters at a town meeting duly called for the purpose, in case of a town, decide as to the property in either city or town adjoining it which it shall have the right to buy under this act, as to whether it shall be included with the property concerning which the questions of purchase are to be decided, under said chapter three hundred and seventy, and, upon said vote, said city or town shall be under the same obligations and have the same rights as to the purchase of such outlying property as if the same were within its limits; but such vote shall not prejudice the right of the city or town voting to deny or resist its obligation under the law to purchase any property, except that it shall not refuse to buy the property concerning which it has so voted, on the ground that it is not within its own limits. If such city or town required to make the purchase shall not pass such vote within said sixty days, as to the outlying property in any adjoining city or town, its right to buy the same

shall be precluded and no obligation thereto shall accrue. Before the expiration of sixty days after the filing of said schedule no commissioner shall be appointed under the provisions of section thirteen of said chapter unless such vote has been passed, or it shall appear that the party filing the schedule owns no plant in an adjoining city or town which may be the subject of adjudication.

SECTION 5. Section twelve of said chapter three hundred and seventy is hereby amended by striking out in lines thirty-one to thirty-four of said section, inclusive, the words "the earning capacity of such plant based upon the actual earnings being derived from such use at the time of the final vote of such city or town to establish a plant and also," and inserting in line thirty-seven thereof, after the word "town," the words: — unless it shall refuse or neglect to purchase the same, — and striking out in lines forty-eight to fifty-five, inclusive, the words "when any capital has been paid in in property instead of in cash the valuation placed upon such property in estimating it as paid-in capital shall not be conclusive in estimating its value under the foregoing provisions, but may be disputed by a city or town, and if shown to have been excessive may be reduced by the authority fixing the price of the plant and property as hereinafter provided," and adding at the end of said section the words: — No city or town shall be obliged to buy any property added to a plant unnecessarily after the passage of its first vote that it is expedient to exercise the authority conferred in section one, nor any property except such as shall be suitable for the ordinary business of the vendor which the city or town may assume; and if any property or plant which the city or town shall be entitled or obliged to buy under this act will not be available to the city or town if purchased, by reason of liens, interests of third parties, private contracts or other cause, whereby the city or town purchasing would be at a disadvantage in the use of the same as compared with the vendor, the city or town may be released from buying the same, or a discount may be made from the price to be paid for the plant, as the commissioner or commissioners provided for in section thirteen shall determine to be equitable under the circumstances, — so as to read as follows: — *Section 12.* When any city or town shall decide as hereinbefore provided

to establish a plant, and any person, firm or corporation shall at the time of the first vote required for such decision be engaged in the business of making, generating or distributing gas or electricity for sale for lighting purposes in such city or town, such city or town shall, if such person, firm or corporation shall elect to sell and shall comply with the provisions of this act, purchase of such person, firm or corporation before establishing a public plant, such portion of his, their or its gas or electric plant and property suitable and used for such business in connection therewith, as lies within the limits of such city or town. If in such city or town a single corporation owns or operates both a gas plant and an electric plant, such purchase shall include both of such plants; but otherwise such city or town shall only be obliged to purchase the existing gas plant or plants if it has voted only to establish a gas plant, and shall only be obliged to purchase the existing electric plant or plants if it has only voted to establish an electric plant. If the main gas works, in the case of a gas plant, or the central lighting station, in the case of an electric light plant, lie within the limits of the city or town which has voted to establish a plant as aforesaid, such city or town shall purchase as herein provided the whole of such plant and property used in connection therewith lying within its limits, and the price to be paid therefor shall be its fair market value for the purposes of its use; no portion of such plant to be estimated however at less than its fair market value for any other purpose, including as an element of value any locations, or similar rights, acquired from private persons in connection therewith, plus the damages suffered by the severance of any portion of such plant lying outside of the limits of such city or town, unless it shall refuse or neglect to purchase the same, and minus the amount of any mortgage or other incumbrance or lien to which the plant so purchased, or any part thereof, may be subject at the time of transfer of title; but such city or town may require that such plant and property be transferred to it free and clear from any mortgage or lien, unless the commissioners appointed under the provisions of section thirteen of this act shall otherwise determine. Such value shall be estimated without enhancement on account of future earning capacity, or good will, or of exclusive

privileges derived from rights in the public streets. If the main gas works or central lighting station of such a plant do not lie within the limits of the city or town which has voted as aforesaid, then such city or town shall only purchase that portion of such plant and property which lies within its limits, paying therefor upon the basis of value above established, but without allowance of damages on account of severance of plant. No city or town shall be obligated by this section to buy any apparatus or appliances covered by letters patent of the United States or embodying a patentable invention, unless a complete right to use the same and all other apparatus or appliances necessary for such use within the limits of such city or town, to such extent as such city or town shall reasonably require such right, shall be assigned or granted to such city or town at a cost as low as the cost of such right would be to the person, firm or corporation whose plant is purchased. No city or town shall be obliged to buy any property added to a plant unnecessarily after the passage of its first vote that it is expedient to exercise the authority conferred in section one, nor any property except such as shall be suitable for the ordinary business of the vendor which the city or town may assume; and if any property or plant which the city or town shall be entitled or obliged to buy under this act will not be available to the city or town if purchased, by reason of liens, interests of third parties, private contracts or other cause, whereby the city or town purchasing would be at a disadvantage in the use of the same as compared with the vendor, the city or town may be released from buying the same, or a discount may be made from the price to be paid for the plant, as the commissioner or commissioners provided for in section thirteen shall determine to be equitable under the circumstances.

SECTION 6. When any city or town shall acquire, under the provisions of this act or of said chapter, a plant theretofore used for the manufacture or distribution of gas or electricity for the purposes of heating or power, it may continue to use the same for such purposes.

SECTION 7. No city shall exercise the authority conferred in section one of said chapter until a vote that it is expedient to exercise such authority shall have passed each branch of its city

council by a two-thirds vote in each of two consecutive municipal years, and thereafter have been ratified by a majority of the voters present and voting thereon at an annual municipal election. When such a vote has failed to secure such ratification no similar vote shall be submitted for ratification until the expiration of three years thereafter. The mayor of any city shall have the power to veto any vote passed under authority of this act, but nothing in this act shall be construed to prevent the city council from passing any such vote, in the usual manner, over the veto of the mayor.

SECTION 8. Any city or town having established a plant for the distribution of gas or electricity for lighting purposes, under the provisions of said chapter three hundred and seventy, without a plant for manufacturing the same, may, if such plant be a gas plant, purchase gas, and if an electric lighting plant, electricity, to be distributed by means of the same, from any adjoining city or town or any corporation manufacturing the same.

SECTION 9. In lieu of issuing bonds under the provisions of section four of said chapter three hundred and seventy, a town or city may issue notes or scrip, subject in all other respects to the provisions of said chapter.

SECTION 10. Any town voting to establish or having established a gas or electric light plant, or both, under and in accordance with the provisions of chapter three hundred and seventy of the acts of the year eighteen hundred and ninety-one, may, at a town meeting called for that purpose, or at a regular annual town meeting, choose from its citizens three persons, to be known as the municipal light board, one of whom shall be chosen for one year, one for two years and one for three years, and at each annual town meeting thereafter one for a term of three years, who shall have full power and authority to construct, purchase and establish a public lighting plant in accordance with the vote of the town, and to maintain and operate the same; and they shall in all other respects possess the powers and perform the duties conferred and imposed upon the selectmen of such towns by sections eight and nine of said chapter, and the manager referred to in section eight of said chapter shall be appointed by and act under the direction of said board.

SECTION 11. This act shall take effect upon its passage.
[Approved June 9, 1893.]

[CHAP. 474]

An Act relating to the Bay State Gas Company.

Be it enacted, etc., as follows :

SECTION 1. The charter of the Bay State Gas Company is hereby revoked and annulled, and said corporation shall be subject to the provisions of sections forty-one to forty-five, inclusive, of chapter one hundred and five of the Public Statutes, so far as the same are applicable, and subject to the provisions hereinafter contained.

SECTION 2. The supreme judicial court shall, on application made as provided in section forty-two of chapter one hundred and five of the Public Statutes, or on application of the mayor of the city of Boston, appoint a receiver of the said Bay State Gas Company, who shall hold and distribute the estate and effects of the said company as provided in sections forty-two to forty-five, inclusive, of said chapter one hundred and five of the Public Statutes.

SECTION 3. Sections one and two of this act shall take effect on the first day of December in the year eighteen hundred and ninety-three; unless the said Bay State Gas Company, shall, prior to said day, procure or cause a certain obligation for four million, five hundred thousand dollars, dated the eleventh day of March in the year eighteen hundred and eighty-five, and issued by said company as part consideration for a contract for the construction of its works, to be legally cancelled and discharged, and shall surrender and deliver the said obligation thus legally cancelled and discharged to the commissioner of corporations.

SECTION 4. The said Bay State Gas Company may, for the purpose of procuring such cancellation and delivery of said obligation, issue to the holder or holders of said obligation upon the said delivery, stock to an amount equal to the excess of the actual market value of the property of said company over five hundred thousand dollars, not including therein any value for its franchises. The said value of said property shall be determined by three disinterested persons to be appointed as commissioners by the supreme judicial court, upon application of the said company, after notice to the mayor of the city of Boston, who shall be a party to all

proceedings before the said commissioners. Stock may be issued under the provisions of this act only after the findings of said commissioners have been approved by the court, after due notice to all parties interested, and only in the event that the aggregate amount of stock, bonds, notes and other liabilities of said company outstanding at the time of such issue shall not exceed the said value of the property found and approved as aforesaid.

SECTION 5. It shall not be lawful for the said Bay State Gas Company to issue any stock or bonds or to assume any liabilities or to pay any consideration for or on account of the principal of the said obligation, or for the purpose of procuring the cancellation and delivery thereof, except as provided in this act.

SECTION 6. Sections four and five of this act shall take effect upon its passage. [*Approved June 10, 1893.*]

APPENDIX C.

RATES FOR PEABODY INCANDESCENT LIGHTS,

ADOPTED SEPT. 21, 1893.

LIGHTS BY YEARLY CONTRACT.

Running 5 lights or less, 75 cents per month.

Running 5 lights to 15, 65 cents per month.

Running 15 lights to 25, 60 cents per month.

Running 25 lights and upward, by special contract.

Prices for running three nights per week, 75 per cent. of the above.

Houses, by meter, $\frac{1}{2}$ cent per hour, each light.

Houses burning less than \$20 worth per year, to be charged \$2 per year for use of meter.

Halls and buildings using 50 or more lights by meter, $\frac{1}{2}$ cent per hour each.

Buildings requiring one light to burn all night, \$5 per year extra.
All bills to be paid quarterly.

This calls for lamps of 16 candle power.

Contracts for other lights in proportion.

Are lights, special contract.

RULES AND REGULATIONS FOR PEABODY INCANDESCENT LIGHTS.

ADOPTED OCT. 19, 1893.

1. The Peabody Electric Light Department will place upon the premises of the consumer the meter and other appliances necessary to connect the consumer's installation with the main line without

cost to the consumer, and keep in repair and maintain all its appliances ; provided that, if damage is done its property, the consumer shall pay the value of the property so damaged or destroyed, or the cost of repairing the same.

2. The consumer is strictly forbidden to interfere with any meters or other appliances of the Peabody Electric Light Department, but in case of defective service should immediately notify the manager.

3. The department agrees to use reasonable diligence and care to provide a regular, sufficient and uninterrupted supply of current during the running hours of the plant ; but in case the supply should fail or be interrupted by reason of accident or any other cause except the neglect of the department, the department or the town shall not be liable for any damage for such failure or interruption, nor shall any claim be made for rebate or allowance therefor.

4. Consumers will not be permitted to use the current for any other purpose or in any other place than that provided for in the contract, without first having received written consent from the manager.

5. All employees of the department are strictly forbidden to demand or accept any personal compensation from consumers for any service rendered in connection with their duties.

6. Bills are payable quarterly on the first days of January, April, July and October, and will be considered in arrears if not paid before the 15th of said months.

7. The department reserves the right to discontinue the current without notice, in case the consumer is in arrears in payment of bills, or fails to comply with all rules and regulations of the department.

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REPORTS
OF
CONTESTED ELECTION CASES
IN THE
SENATE AND HOUSE OF REPRESENTATIVES
OF THE
COMMONWEALTH OF MASSACHUSETTS
FOR THE
YEARS 1886-1893,
TOGETHER WITH THE OPINIONS OF THE SUPREME JUDICIAL
COURT RELATING TO SUCH ELECTIONS.

EDITED AND PUBLISHED FOR THE LEGISLATURE UNDER AUTHORITY
OF CHAPTER 86 OF THE RESOLVES OF THE LEGISLATURE
FOR THE YEAR 1886,

BY
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MASSACHUSETTS ELECTION CASES, 1886-1893.

SENATE — 1886.

Special Committee on the Returns of Votes for Senators. — Hon. JAMES R. DUNBAR, Hon. CHARLES S. LILLEY and Hon. WILLIAM T. FORBES.

HERBERT L. PECK *v.* CHARLES A. REED.

Senate Document, No. 19. Jan. 29, 1886. Report by all the committee.

Recount of Votes. The votes cast for senator in a town in the district will not be recounted by the Senate unless evidence is produced of such a nature as to satisfy the Senate that there was probable cause to believe that a mistake had been made in ascertaining or assuming the result of the vote for senator sufficiently large to change the result of the election.

L. E. WHITE *for petitioner.*

JAMES H. DEAN *for sitting member.*

The committee on the Returns of Votes for Senators, to whom was referred the petition of Herbert L. Peck, praying that the seat now occupied in the Senate by Charles A. Reed of the first Bristol district be given to him, having heard the evidence of the parties and the arguments of their counsel, submit the following report : —

Said district is composed of the city of Taunton, and the towns of Attleborough, Easton, Mansfield, Norton, Raynham and Seekonk. The plurality of said Reed in the district upon the face of the returns was eleven votes. No claim was made at the hearing before the committee for a recount except in the towns of Mansfield and Raynham, and no evidence submitted to show a reason for such recount elsewhere. The committee were of the opinion that the evidence offered by the petitioner was not sufficient to justify them in making a recount of the vote of Raynham, and declined to do so.

The evidence with regard to Mansfield, however, was of such a nature as to satisfy the committee that there was probable cause to believe that a mistake had been made in ascertaining or assuming the result of the vote for senator sufficiently large to change the result of the election.

The committee, therefore, decided to recount the vote of Mansfield for senator, and have done so with the following result :—

| | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|-----|
| Herbert L. Peck, | . | . | . | . | . | . | . | . | 68 |
| Charles A. Reed, | . | . | . | . | . | . | . | . | 154 |
| William H. Phillips, | . | . | . | . | . | . | . | . | 20 |

The result of the original count made by the selectmen upon the day of the election was as follows :—

| | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|-----|
| Herbert L. Peck, | . | . | . | . | . | . | . | . | 65 |
| Charles A. Reed, | . | . | . | . | . | . | . | . | 154 |
| William H. Phillips, | . | . | . | . | . | . | . | . | 20 |

The change in the result determined by the recount not being sufficient to overcome Mr. Reed's plurality, the committee recommend that the petitioner have leave to withdraw.

[The report of the committee was accepted. — Senate Journal, 1886, p. 94.]

HOUSE — 1886.

Committee on Elections. — Messrs. CHARLES F. JENNEY of Hyde Park, *Chairman*; ALFRED H. BRYANT of Wayland, JOHN J. MAGUIRE of Boston, FREDERICK L. WHITMORE of Sunderland, DANIEL GUNN of Boston, CYRUS T. BATCHELDER of Peabody and WILLIAM G. WALKUP of Erving.

CHARLES H. MANSFIELD v. CHARLES S. HITCHINGS.

House Document, No. 162. March 10, 1886. Report by CHARLES F. JENNEY, *Chairman*; Messrs. MAGUIRE and WALKUP dissenting.

Qualification of Voter. Residence. A voter who, on October 30, preceding the election of representative, moved his family and furniture to a place outside the representative district and there took up a permanent abode, with no intention of resuming his former residence, has ceased to reside in such district, and has no right to vote there at such election.

Same. A voter, who, having no family, had spent the greater part of the year in Saugus for four years previous to the election, and had worked in Lynn and boarded there during the winter months, with the exception of one winter when he worked in Lynn and boarded in Saugus, being assessed and registered as a voter in Saugus for several years, was *held*, upon his testimony that he was only temporarily in Lynn and expected to return to Saugus the next summer, to have acquired no domicile in Lynn, and to have been qualified to vote in Saugus.

Registration of Voters. Personal Application necessary after Voting List is posted. The provisions of section 21 of chapter 298 of the Acts of 1884 — that after the lists of qualified voters are printed and posted, as required by law, no name shall be added thereto unless the applicant for registration appears in person before the registrars or assistant registrars and proves his claim to be registered — were *held* by a majority (five) of the committee to be *mandatory*, so that persons whose names were added to the list after it was so printed and posted, without their personal application, were not entitled to vote at the ensuing election, and their votes, even if received without objection, must be in an election controversy rejected as illegal. A minority of the committee (two) *held* that the law was merely *directory*, and that the votes of such persons so registered, when cast in good faith and received without objection, should be counted.

Effect of Illegal Votes upon Election. Burden of Proof. The mere fact that a number of illegally registered votes were cast and counted at an election was *held* by the House of Representatives insufficient reason for avoiding the election in the absence of proof that the result of the election was changed thereby.

FRANK D. ALLEN and GEORGE A. O. ERNST *for petitioner.*
FRED. H. WILLIAMS *for sitting member.*

The Committee on Elections, to whom was referred the petition of Charles H. Mansfield for a recount of the votes cast for representative in the thirteenth Essex district, for an investigation of certain alleged illegal voting for representative from said district,

and asking that said petitioner may be declared to have been duly elected a member of this House, having heard the parties, present the following report : —

The thirteenth Essex representative district comprises the towns of Saugus, Topsfield, Lynnfield and Middleton. In this district seven hundred and fifty-two votes were cast for representative. Of these, Charles S. Hitchings received three hundred and sixty-eight, Charles H. Mansfield three hundred and sixty-four, and all others twenty, as appeared from the returns from said district, and said Charles S. Hitchings was declared duly elected as representative from said district, and a certificate of election, in due form of law, was issued to said Hitchings. No evidence was offered of any inaccuracies in the count in said district, and any claim thereto was expressly waived by the petitioner.

One James W. Ray voted at said election in the said town of Lynnfield for the said Charles S. Hitchings for representative from said district. On the thirtieth day of October, A.D. 1885, said Ray moved his family and household furniture to Lynn, in said county, and out of the said district, and there took up his permanent abode, having then no intention to resume his former residence in Lynnfield.

One Charles Blakeley voted at said election in the said town of Saugus for the said Hitchings for representative from said district. Said Blakeley had spent the greater part of the year in Saugus for the last four years, and had worked in Lynn and boarded there during the winter months, with the exception of one winter when he had worked in Lynn and boarded in Saugus. He had been assessed for a poll tax and had been a registered voter in Saugus for several years. He testified that he was only temporarily in Lynn, where he expected to remain until about the first of April next, and expected to return to Saugus next summer ; that he was unmarried, and had no parents living. The testimony of this witness was contradictory.

Under the third amendment to the Constitution, residence within the town or district, in which the right to vote is claimed, for six calendar months preceding the election is necessary. "Residence," as used in the Constitution, is "equivalent to the familiar term domicil." *Opinion of the Justices*, 5 Met. 587, 588. Domicil is a question of fact. A man must have a domicil somewhere, and he cannot have more than one domicil at the same time for one and the same purpose. It is obvious, then, that an existing domicil continues until another is acquired, and that the acquisition of a new domicil immediately terminates the

preceding one. *Thorndike v. Boston*, 1 Met. 242; *Opinion of the Justices, supra*; *Ordway v. Howe*, Loring & Russell's Election Cases, 3. So, too, it is well settled that a "domicil once existing cannot be lost by mere abandonment, even when coupled with the intent to acquire a new one, but continues until a new one is in fact gained." *Shaw v. Shaw*, 98 Mass. 158.

Applying these principles to the present case, it is clear that Ray was not a resident of the town and district for six calendar months preceding the election, and that his vote was illegal, and should be deducted from the plurality of four votes received by said Hitchings according to the official returns. Applying the same principles to the case of Blakeley, your committee came to the conclusion that he had acquired no new domicil in Lynn, even if he had left Saugus with the intention of acquiring one elsewhere, and that he was, so far as residence was concerned, a legal voter in the town of Saugus, and that his ballot should be counted.

It was also claimed that the clause of the Constitution requiring the payment of a State or county tax as a prerequisite to the right to vote had not been complied with, and that certain votes should be thrown out for that reason; and that there were other alleged irregularities, sufficient in number to change the result of the election. But independently of these alleged irregularities, which were not fully investigated and consequently are not reported on, we believe that there is still another question in issue that disposes of this case, and renders it unnecessary to continue the investigation.

In chapter 298 of the Acts of 1884 it is provided (section 27) that the registrars of voters in towns shall, at least thirty days before the Tuesday next after the first Monday in November annually, make correct alphabetical lists of all the persons qualified to vote for the several officers to be elected at that time; and shall, at least thirty days before said Tuesday after the first Monday in November annually, cause such lists in towns to be posted up in two or more public places.

Section 21 of the same statute provides that, after the lists of qualified votes are printed and posted as now required by law, no name shall be added thereto, unless the applicant for registration appears *in person* before the registrars or assistant registrars and proves his claim to be registered; while section 20 provides that the registrars before registering any person whose qualifications have not been previously determined by them shall examine him under oath in regard to his qualifications to vote, and shall require such person to write his name and read in the official

edition thereof at least three lines of the Constitution, other than the title, in such manner as to show that he is not prompted nor reciting from memory, before they place his name on said register, unless such person is exempted by article 20 of the amendments to the Constitution.

It appeared in evidence that at least fifty persons were registered in the town of Saugus, after the posting of the lists as required by section 27, without appearing in person before the registrars as required by section 21 of the statute. It also appeared that at least thirty-two of these voted in said election; but who these were, and whether there was a still larger number of persons so registered and voting, your committee were unable to decide conclusively without the personal examination of over one hundred persons. No question has been made as to the legal qualifications of such persons to vote in said elections, providing they had been properly registered.

Was such registration illegal, and should the votes of persons so registered be rejected? It cannot be denied that under section 21 it was the duty of the registrars to require the personal attendance of all applicants for registration. The statute is explicit in its terms, and no other construction was claimed at the hearings before the committee.

The more difficult question is whether the provisions of section 21 are mandatory or directory. Was their observance essential to the validity of the election, or simply an irregularity in the manner of conducting it? Is the requirement of personal presence as a prerequisite for registration a condition upon which the right to vote depends?

There are many cases in which it has been held that certain informalities in election proceedings did not render the vote itself illegal. A very large number of these have been cases where some irregularity existed in the proceedings of the election officers after the election. *Johnson v. Cole*, Loring & Russell's Election Cases, 36; *Beck v. Plummer*, *Ib.*, 40; *Newcomb v. Holmes*, *Ib.*, 57; *Haynes v. Hillis*, *Ib.*, 300. In such cases, where the vote has been fairly and legally expressed, and can be determined, no subsequent act is allowed to operate to its exclusion. In other cases, the failure to properly call the meeting has been held insufficient to invalidate the election, it being shown that in fact notice thereof was given, and that no injury resulted from the failure to observe such provisions. *Haws v. Darling*, Loring & Russell's Election Cases, 18; *Newcomb v. Holmes*, *Ib.*, 57; *Bird v. Merrick*, *Ib.*, 115; *Hillman v. Flanders*, *Ib.*, 338; *Commonwealth v. Smith*, 132 Mass. 289. In cases like these the statute provisions

have been construed to be directory. In both of these classes it will be noticed that the irregularity was that of the election officers and that no fault or remissness could be imputed to the electors.

The case of *Whitaker et al., petitioners*, Loring & Russell's Election Cases, 360, was called to the attention of the committee, but that case is not an authority on the point in controversy. It was a case arising under sections 4 and 12 of chapter 7 of the Public Statutes, providing for the use of envelopes for the enclosure of ballots. The statute prescribes the kind of envelope to be used, and declares that no other envelope shall be used. A vote was cast in an envelope, but not of the kind prescribed by statute. It was held, in the Senate, that the vote should be counted. A similar case before this House was decided differently. *Taft v. Cole*, Loring & Russell's Election Cases, 45. But whether the case of *Whitaker* was rightfully decided is immaterial. The decision in that case was largely based upon a comparison of the various statutory provisions relative to the subject. The fact that the purpose of the statute was to secure the privilege of secrecy to the voter marks the wide distinction between that case and the present.

Where a statute expressly provides that a failure to observe its provisions shall invalidate the election, or any votes cast therein, there can be no doubt as to its construction. In other cases the nature and purpose of the thing to be done, the antecedent legislation and the particular language used must be considered. As a general rule, however, negative words make a statute imperative. Dwarris on Statutes, 611.

In the present case the statute is direct and positive. "It is prohibitory in expression and effect; it does not say simply that a certain thing *shall be done*, but it declares in unequivocal terms that a certain thing *shall not be done*." *Taft v. Cole*, *ubi supra*. It declares that "no name shall be added" to the list "unless the applicant appear in person." This provision goes to the ascertainment of the qualifications of the electors, and does not come within the principle of the cases before considered.

Section 9 of chapter 7 of the Public Statutes supplements this provision, and provides that no person shall vote at an election whose name has not been previously placed on the list. It will be noticed that this section and the one under discussion are so similarly drawn that any construction founded on the language used must be identical in each case. The provisions of section 9, above cited, have been held to be mandatory and their non-observance a proper ground for the rejection of votes cast in violation of their provisions. *Capen v. Foster*, 12 Pick. 485; *Whitaker et al., petitioners*, *supra*.

Both provisions are, moreover, directed to the same purpose, namely, to secure the proper proof of the qualifications of those desiring to exercise the right of suffrage, and to prevent error and fraud in elections. These sections must be read together, as both relate to the same subject-matter. No name shall be added to the list unless the applicant appear in person, and no person shall vote unless his name is on the list. Your committee came to the conclusion that the section of the statute under consideration was mandatory, and that it came within the principle laid down in *Capen v. Foster, supra*.

To hold these provisions directory merely would leave the determination of the voter's qualifications to evidence heard after the election, and to nullify all statutory provisions requiring the determination of the right of suffrage prior to casting the ballot, placing the burden on those who claim illegal votes were cast, not only to search out the alleged illegal voters, but to show their want of qualifications, instead of requiring them to appear and prove their right to the ballot.

This is not wholly a new question. A leading authority (Brightly, *Leading Cases on Elections*, 452) says: "Perhaps the most important question which has arisen under this head of the election law is, whether the omission of the election officers to require from unregistered voters the preliminary proof required by law is a mere irregularity or a matter of substance which renders such votes absolutely illegal. . . . If the election officers receive a vote without that preliminary proof which the law makes an essential prerequisite to its reception, such vote is as much an illegal one as if the voter had none of the qualifications required by law. The voter might not be able to produce the legal preliminary proof, and it would not appear to be just to the candidates to permit a vote to be made legal by evidence subsequently procured, which was absolutely illegal when received by the officers." See also *State v. Hilmantel*, 21 Wis. 562. In Michigan, under a statute expressly forbidding all voting by persons not registered, it has been held that all votes cast by legal voters who were not registered, because there had been no board of registration in existence to register before, should be rejected. *People v. Popplekom*, 16 Mich. 342. And it has been held, by a committee of this House, that a person registered after the expiration of the time fixed by law cannot legally vote. *Clafin v. Wood, Loring & Russell's Election Cases*, 353.

The antecedent legislation upon this subject also leads to the same conclusion. Under the Public Statutes (chap. 6, sect. 24) it was the duty of the registration officers to enter on the list all

persons known to them to be qualified to vote, and no personal attendance was required in such case. When this whole subject was carefully revised in 1884 this clause was repealed, and that requiring personal attendance was passed. If the Legislature had intended to leave the determination of qualifications, necessary in order to register, to the *unofficial* knowledge of the board of registration, this section would not have been repealed.

And, finally, any other construction than that adopted by the committee would lead to the nullification of the law, and to the abuses which it was passed to prevent.

It was admitted at the hearings that the alleged illegal voters had been before the board the preceding year; that their qualifications, as then existing, had been determined; and that, if they had come before the board in person, these qualifications, so far as they were of such a nature as to continue from year to year without change, need not have been redetermined. (Sect. 20, chap. 298 of the Acts of 1884.) But this cannot change the result. Section 21, requiring personal appearance, cannot be construed to mean one thing for one class of persons and directly the opposite for another. Its construction must be uniform in all cases. But apart from this, the determination of the right to vote depends upon many considerations of a fluctuating nature which may exist at one time and not at another. Chief Justice Shaw, in *Capen v. Foster, supra*, gives many of the qualifications as follows:—

“The right of an individual person, claiming the privilege of voting, may involve an inquiry into the fact of citizenship, sex, age, domicile within the Commonwealth, domicile within the town or district, the payment of taxes, exemption by law from the payment of taxes, and the fact of his being a pauper, or under guardianship, or otherwise.”

The requirement of personal presence is also necessary to prevent the placing of names upon the list without the knowledge or consent of the person registered.

It was claimed at the hearings, and was in evidence, that part, at least, of those so registered would have personally appeared had not the registrars construed the law as not requiring personal appearance in all cases. But the old rule of almost universal application must apply. Ignorance of the law excuses no one. The mistake of a board of registrars cannot affect the construction of an act of the Legislature, and cannot operate to change its intent.

Your committee came to the conclusion that the votes of all persons registered in violation of the provisions of section 21 of the statute should be rejected. The illegal registration, at the

outside, was confined to a little over one hundred persons, of whom between eighty-five and ninety voted. At least fifty persons were wrongfully registered. No definite conclusion could be reached without the examination of over one hundred persons.

In view of the nature and extent of these irregularities, permeating as they do the entire poll of Saugus, and the utter disregard of the law as to registration, it is exceedingly doubtful and uncertain what the vote of Saugus was; and after any examination, however extensive it might be, the same doubt and uncertainty would exist.

The committee therefore report that it is impossible to determine, with fairness and certainty, the result of said election. *Perry v. Montague*, Loring & Russell's Election Cases, 200; *Splaine v. McGahey*, *Ib.*, 393.

They therefore report a resolution that the seat be declared vacant, and a precept issued for a new election.*

Messrs. MAGUIRE and WALKUP of the committee dissented from the report, and submitted, as a minority, the following views:—

The statement of facts as set forth in the majority report is correct, and the points at issue are whether the provisions of section 21 of chapter 298 of the Acts of the year 1884 are directory or mandatory in their nature, and whether the names of persons having been placed upon the registration list without the parties appearing in person before the board of registrars, and the votes of such parties having been received at the polls without question, such votes shall subsequently be held illegal. The question is not whether it was the duty or right of the registration officers to register the names of those who did not appear in person before them, nor whether it was the duty of election officers to register such votes, but is, what shall be done with the votes when once having been received?

While said section 21, when read alone and apart from the other sections of said chapter, would seem to imply that a failure

* [NOTE BY THE EDITOR.—The Attorney-General of the Commonwealth (Hon. EDGAR J. SHERMAN), on Aug. 18, 1886, gave the following opinion upon the necessity of personal application for registration: "It is clearly the duty of the board of registrars of voters to require every applicant for registration to appear in person before the board and submit himself for examination under oath in regard to his qualifications to vote; also to require such applicant to write his name and to read the Constitution (Acts of 1884, chap. 298, sect. 20); and if the applicant is a naturalized citizen, to require him to produce his naturalization papers and make oath that he is the identical person named therein. (Sect. 38.)

"The practice, which I am informed has grown up in some towns, of entering upon the register, by one of the registrars, the names of persons known to him to be entitled to vote, without the personal attendance of such persons and a vote of the registrars, is contrary to the spirit and letter of the law, improper and illegal."

of the applicant to appear in person before the registrars would be fatal, yet, when read in connection with sections 20 and 35 of said chapter, and section 9 of chapter 7 of the Public Statutes, our conclusion is that the statute is merely directory.

The general rule for the construction of election statutes has been best stated by Judge Cooley as follows, viz. : —

“ Election statutes are to be tested like other statutes, but with a leaning to liberality, in view of the great public purposes which they accomplish, and, except where they specifically provide that a thing shall be done in a manner indicated and *not otherwise*, their provisions, designed merely for the information and guidance of the officers, must be regarded as directory only, and the election will not be defeated by a failure to comply with them, provided the irregularity has not hindered any who were entitled from exercising the right of suffrage, or rendered doubtful the evidence from which the result was to be declared.” Constitutional Limitations (5th ed.), 777.

The whole tendency of the decisions, particularly in Massachusetts, where there has been a failure to comply with the laws regulating the forms and proceedings governing elections, has been to regard such provisions as directory in their nature, and not mandatory. The registrars simply determine whether a voter possesses the qualifications for voting required by the Constitution; they do not create new qualifications, and the mere failure of the registration officer to perform his duty should not render illegal the vote cast by a voter in good faith. “The committee believe that the whole law regulating the forms and proceedings at elections is merely directory, and cannot deprive a voter of rights which he holds under the Constitution.” *Methuen, Cushing, S. & J., Election Cases*, 433. See also *Capen v. Foster*, 12 Pick. 485. And while it is argued that in the case at hand there is no excuse, for the voter himself should have known it was his duty to appear in person before the board, yet the tendency of the decisions in Massachusetts, both of the courts and of the committees on elections of the Massachusetts Legislature, has been, not to rigidly adhere to the old maxim, “ignorance of the law excuses no one,” but to put a very liberal construction upon the acts of a voter, endeavoring in all cases to ascertain and recognize his intention, and, if possible, to carry into effect his acts as he intended, although they may not have been in accordance with the technical requirements of the law. There has been a very marked illustration of this in the case of *Whitaker v. Cummings*, Loring & Russell’s Election Cases, 360, unanimously reported by a committee of able lawyers of the Massachusetts

Senate in 1883, in which all previous decisions were ably reviewed, which overrules the case of *Taft v. Cole*, decided in 1858, and which the minority think is clearly and distinctly parallel to the present case.

The provisions of the statute (Pub. Stats., chap. 7, sect. 1) require that officers shall be voted for upon one ballot. In *Whitaker v. Cummings* the voter took a regular ballot of one party and erased from it all the names but that for candidate for governor, and then took a ballot of the opposing party and erased from it only the name of the candidate for governor, and then placed the two papers in an envelope and deposited it in the ballot-box. It was held that the provisions of the statutes were directory and that said ballot should be counted.

There is no distinction in the line of reasoning between that and the present case. The Public Statutes distinctly set forth that officers should be voted for on one ballot, and the voter is supposed to know it, and if the rule "ignorance of the law excuses no one" should be adhered to, the ballot of this man should have been regarded as irregular and cast out.

We believe the decision to have been a just one, and that, in the case at hand, the ignorance of the voter of the provisions of said section 21 requiring him to personally appear, coupled with the fact that the board of registrars voted not to require such person to come before them, and publicly gave notice of their decision, should not render votes cast by such voters illegal.

Furthermore, it is claimed by the majority that section 9 of chapter 7 of the Public Statutes, providing "that no person shall vote at an election whose name has not been previously placed upon such list," supplements this provision of said section 21 of chapter 298 of the Acts of the year 1884, and, when thus taken together, they constitute a mandatory requirement. We cannot agree with the views of the majority in this respect, and would again refer to the same case of *Whitaker v. Cummings*, where a certain voter placed his ballot in an envelope different from that required by the statute, and it was received and deposited in the ballot-box without a challenge or objection from the election officers, and it was held that such vote should be counted.

Section 12 of chapter 7 of the Public Statutes says: "*No votes shall be received* by the presiding officers at an election provided for in this chapter unless presented for deposit in the ballot-box by the voter in person in a sealed envelope or open and unfolded so that such officers can know that only one ballot is presented." Section 4 of the same chapter, after providing for self-sealing envelopes, says "such envelopes shall be of uniform size and

color, and bear the arms of the Commonwealth, and no other envelopes shall be used at the polls."

Here we have two positive and direct provisions,—*no ballot* shall be received unless in a sealed envelope, and the envelopes shall be of uniform size and color and bear the arms of the Commonwealth, and *no other envelope* shall be used.

A voter used a different envelope from that required by the statute, and the committee, in deciding that the grounds presented for rejecting the vote are not tenable, and that the vote should be counted, say: "It seems, therefore, to be contrary to sound reason and the spirit of our statutes, and the judicial and legislative construction of them, to hold that a ballot cast in good faith and without fraud by a legal voter who has complied with all the provisions of law which entitle him to deposit his ballot, should be rejected because it was deposited in the ballot-box in a common envelope instead of the one prescribed by the statute. Again, it was the duty of the warden to have refused the ballot and directed the voter to use the statute envelope. But no such duty was performed by that officer in this case, and to refuse to count a vote thus ignorantly deposited by a voter would open the door to gross frauds on the part of the election officers." (Loring & Russell's Election Cases, 363.) The cases are analogous. In *Whitaker v. Cummings* it was the duty of the voter to know that the ballot must be cast in a particular way provided by the statute, as here it was the duty of the party to know that he should appear in person before the board of registrars.

In both cases there was a fault on the part of those in official station; in both cases there was a fault on the part of the voter; and in both cases the vote was received, and the question was, and is, what shall be done with it? We believe that the decision in *Whitaker v. Cummings* was wise and proper, and that the reasoning was sound and applicable to the case at hand. The ballots were cast by legal voters who possessed all the qualifications required by the Constitution; they were cast in good faith, without fraud and without objection, and there has been no question raised but that the election was conducted in a perfectly fair and unobjectionable manner. Moreover, no injustice could have been done the petitioner by this method of registration, inasmuch as it appeared in evidence that names representing both political parties were thus placed indiscriminately upon the list, and that the petitioner, or some one representing him, was present at all the meetings of the board of registrars.

The point involved in the cases cited in the report of the majority of the committee is not the same as that in the case at hand.

The question here is, what is the effect of a vote once received and counted, having been placed upon the register by the proper officers, although irregularly, as alleged? In each one of the cases cited, however, the votes were held illegal because the names of the parties casting the same did not appear upon the list at all, and notably so in the Michigan and Wisconsin cases. Of the Massachusetts cases cited, in *Whitaker v. Cummings* it appeared that the vote of one Graham, whose name had previously appeared on the list and had before the election subsequently been erased, was received by the election officer and counted. At the same time Graham was not a resident of the ward in which he voted and had no right to vote there, and the decision of the committee that his vote ought not to have been counted was just and reasonable. In the case of *Capen v. Foster*, 12 Pick. 485, which was a suit brought against the election officers by one whose vote had been refused because his name was not on the list of qualified voters, it was decided that the voter had no cause of action, but it was not decided that if his name had been placed upon the list irregularly that his vote should not be counted, and that is the question at issue in this case.

It is to be noted that in this case (*Capen v. Foster*), which has been so frequently cited in the report of the majority, Chief Justice Shaw said: "The Constitution simply gives the right of elective franchise and prescribes the qualifications of the voters, but leaves the mode and manner of exercising the right open to regulation by the Legislature," and the head-note of said case is as follows, viz.: "The provision in statute 1821, chapter 110, and statute 1822, chapter 104 (subsequently incorporated in section 9 of chapter 7), requiring that, previous to an election, the qualifications of voters shall be proved and their names be placed on an alphabetical list or register, is not to be regarded as prescribing a qualification in addition to those which, by the Constitution, entitle a citizen to vote, but only as a reasonable regulation of the mode of exercising the right of voting which was competent to the Legislature to make."

While, in all the cases cited, the names of the voters did not appear upon the list of voters, yet, in the case at hand, the names of all the voters were placed upon the list by the board of registrars and were open to inspection and criticism for nearly a week previous to election, and there must of necessity be a different construction placed upon a vote cast by a party whose name was placed upon the registration list by the proper officials than upon that cast by a party whose name has never been upon the list.

But, assuming for the sake of argument that these votes so cast were illegal, it does not seem to the minority of this committee that sufficient evidence has been presented to warrant the conclusions arrived at by the majority, to the effect that the seat should be declared vacant.

The rule of law that "the burden of proof rests upon the plaintiff" holds with especial emphasis in contested election cases. McCrary on Elections, § 306.

"An election return cannot be set aside, or the declared result of an election avoided, unless it be proved that illegal votes have been cast against the sitting member, and would have changed the declared result." *Barr et als., petitioners*, Loring & Russell's Election Cases, 254.

Upon the most liberal construction of the evidence presented in favor of the petitioner and against the sitting member, the sitting member would still have a majority of one vote, and your minority feel that, in any event, the seat should not be declared vacant, even upon the construction given to the statute by the majority, unless it be found, after an examination of every voter whose name was thus placed upon the list, that a sufficient number of such votes were cast which, being deducted from the total result as announced, would leave the petitioner a majority of votes. It is not sufficient to show that illegal votes were cast, but it must be shown clearly and positively that a sufficient number of illegal votes were cast to change the result.

We, as a minority of the committee, therefore recommend that the petitioner have leave to withdraw.

[Upon the presentation of the report, and the resolution of the majority of the committee to the House, the following resolution was unanimously substituted:—

Whereas, It does not appear from the committee's report that the votes illegally registered would have changed the declared result; therefore

Resolved, That the petitioner have leave to withdraw.

The resolution so substituted was then unanimously adopted. — House Journal, 1886, p. 346.]

HENRY C. HASKELL v. HENRY W. HOPKINS.

House Document, No. 201. March 18, 1886. Report by ALFRED H. BRYANT.

Recount of Votes refused. Where the sitting member was declared elected by a plurality of five votes, the mere fact that there was a discrepancy of one vote between the whole number of votes cast for representative in a town of the district and the number of names checked upon the voting list, and that at the closing of the polls the register of the patent ballot-box used, owing to some defect in its mechanism, indicated nearly one hundred more votes as cast than were in fact cast at the election, is not sufficient reason for granting a recount of the votes of such town by the House of Representatives.

The committee on Elections, to whom was referred the petition of Henry C. Haskell of Deerfield for a recount of the votes cast for representative in the fourth Franklin district, having heard the parties, present the following report: —

The said district comprises the towns of Deerfield, Conway and Whately. In this district, six hundred and sixty-three votes were cast for representative. Of these, Henry W. Hopkins received three hundred and thirty-four, and Henry C. Haskell three hundred and twenty-nine, as appeared from the returns from said district. Henry W. Hopkins was declared duly elected as representative from said district, and a certificate of election in due form of law was issued to him.

The petitioner based his claim to a recount upon two grounds: —

First, That in Conway a discrepancy occurred between the votes as counted, the check-list and the register of the ballot-box of more than enough to change the result of said election.

Second, That the count in said Conway was erroneous.

At the hearings before the committee it appeared that the whole number of votes cast in said Conway was two hundred and twenty-nine, of which, according to the returns, said Hopkins received one hundred and sixty-one and said Haskell sixty-seven. One ballot did not bear the name of any candidate for representative. The total number of names checked upon the voting list, as first counted, was two hundred and twenty-six, but, upon a second count, made immediately after the first, the number of names checked was found to be two hundred and twenty-eight. At the closing of the polls the register of the ballot-box marked three hundred and twenty-three. The registering mechanism of the ballot-box did not work properly. When the numbers one hun-

dred and two hundred were reached the box would not register until some difficulty in the mechanism was obviated. Before the defect was remedied several votes were cast without being registered. Your committee did not, under these circumstances, deem the discrepancies between the number of votes, the check-list and the register of the ballot-box sufficient reason for granting a recount.

But as evidence was offered tending to show an inaccuracy in the count of votes in said town of such a nature that the committee regarded it as its duty to recount the votes,* the town clerk of Conway was summoned to appear with the ballots cast in said election.

The result of the recount is as follows : —

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|------|
| Henry W. Hopkins, | . | . | . | . | . | . | . | 160 |
| Henry C. Haskell, | . | . | . | . | . | . | . | 67 - |

By the recount Henry W. Hopkins lost one vote, and his plurality was reduced to four, but the result of the election was not changed.

The committee, therefore, report that the petitioner have leave to withdraw.

[The report of the committee was accepted. — House Journal, 1886, p. 351.]

* [NOTE BY THE EDITOR. — The editor is informed by the chairman of the committee that the recount in this case was granted upon evidence of an omission by the selectmen to count a small pile of ballots, of such a nature as to call for a recount.]

HOUSE—1887.

Committee on Elections. — Messrs. OTIS C. WARDWELL of Haverhill, *Chairman*; THOMAS H. NOONAN of Boston, WILLIAM H. FOOTE of Westfield, WILLIAM P. TAYLOR of Townsend, ANDREW QUINN of Fall River, JOHN E. HAYES of Boston, and ROLAND TURNER of Scituate.

PETER T. CARROLL *v.* JOHN F. O'CONNOR.

Report unprinted, by Mr. WARDWELL, *Chairman*.

[This was a petition for the seat held by the respondent for the eighteenth Worcester district. The votes for representatives, for reasons not reported, were counted by the committee, and the sitting member found to have a plurality. The committee thereupon reported leave to withdraw, and the report of the committee was accepted. — *House Journal*, 1887, p. 222.]

. HOUSE—1888.

Committee on Elections. — Messrs. WILLIAM H. PREBLE of Boston, *Chairman*; FRANK A. FALES of Norwood, THOMAS F. O'NEILL of Sudbury, ANDREW QUINN of Fall River, MICHAEL J. GARITY of Boston, GEORGE DENNIS of Gloucester, and GEORGE R. PERRY of Norton.

[No cases.]

SENATE — 1889.

Special Committee. — HON. HENRY H. SPRAGUE, HON. JOHN C. CROSBY,
HON. WILLIAM N. DAVENPORT.

ROBERT HOWARD v. JOSEPH O. NEILL.

Senate Document, No. 10. Jan. 18, 1889. Report by all the committee.

Mistake in Name of Candidate. Votes cast for Joseph *Howrad* should, in an election controversy, be counted for Joseph *Howard*, upon proof that the name *Howrad* was printed by mistake upon certain ballots, and was intended for *Howard*; and that no person by name of *Howrad* was a known candidate for senator, or lived in the district.

Recount of Votes by Senate. Rule. After votes have been recounted by the aldermen of a city, as provided by law, the votes will not be recounted by the Senate, in an election controversy, unless there are substantial and strong reasons for believing that there was fraud or error in the recount by the aldermen which would change the result.

Same. Facts not justifying Recount. The mere fact that in recounting votes all the aldermen did not recount all the votes, but were divided into sub-committees, all the members of each sub-committee counting all the votes assigned to such sub-committee, — and that there was some difference between the first count by the election officers and the recount by the aldermen, — will not justify a recount by the Senate.

Effect of Illegal Votes upon the Election. The Senate will not investigate the validity of votes cast and challenged at the election, unless it appears that the result might be changed by such investigation.

Same. The official return of votes, being *prima facie* correct, cannot be set aside by proof that votes were cast by persons not entitled to vote, unless it also is shown that the election officers in receiving such votes acted dishonestly or collusively, or that such votes were cast for the successful candidate and that their rejection would change the result.

The special committee to whom was referred the petition of Robert Howard, that the seat now occupied by Joseph O. Neill as senator of the second Bristol senatorial district may be given to him, having considered the same, submit the following report: —

Mr. Howard and Mr. Neill both appeared before the committee and produced evidence, but were unattended by counsel.

Mr. Howard alleged, as set forth in his petition (a copy of which is hereto annexed), that by the official return of the election of senator in the second Bristol senatorial district, certain votes were cast for Robert *Howrad* for senator; that these votes, though not so counted in the return, were intended for and should be counted for himself; that, if the votes be so counted, he will have a plurality of the votes cast for senator; and that he is

entitled to the seat, instead of Mr. Neill, who received the certificate of election.

Mr. Neill denied Mr. Howard's claim to the seat, and in answer to the petitioner contended —

(1.) That the votes for Robert *Howrad* for senator were not intended and should not be counted for Robert Howard.

In case, however, the votes for Robert *Howrad* should be counted for Robert Howard, and the result thus give Mr. Howard an apparent plurality, Mr. Neill further claimed —

(2.) That an investigation should be had of certain challenged ballots containing the name of Robert Howard for senator, which had been illegally received in the city of Fall River, and which should be rejected, the number of challenged ballots so illegally received being greater than the apparent plurality given Mr. Howard by counting for him the *Howrad* votes.

(3.) That a recount should be made of the votes for senator in Fall River, inasmuch as errors had been made by the aldermen in their recount of the votes for senator in that city, and as the votes of that city, if correctly counted, would still give him (Mr. Neill) a plurality of votes in the district over Mr. Howard.

(4.) That the votes cast for senator in ward three in Fall River, which gave Mr. Howard a plurality of over five hundred votes, should be thrown out, inasmuch as there was a large number of persons, qualified voters in that ward, who were absent in New York during the day of election, but whose names were checked upon the voting lists as having been voted upon.

First. The first question was in regard to the votes cast for Robert *Howrad*. The committee found that by the official return for senator in the second Bristol district, —

| | | | |
|--|---|---|-------|
| Joseph O. Neill of Fall River received votes, | . | . | 4,663 |
| Robert Howard of Fall River received votes, | . | . | 4,642 |
| Robert Howrad of Fall River received votes, | . | . | 60 |
| Herbert A. Skinner of Fall River received votes, | . | . | 127 |

Thus giving Joseph O. Neill a plurality of twenty-one votes over Robert Howard. If, however, the votes for Robert *Howrad* were counted for Robert Howard, Mr. Howard would have a plurality of thirty-nine votes over Mr. Neill.

It appeared that Mr. Burgess, one of the Republican candidates for representative in Fall River, gave a verbal order to Patrick Delaney of the firm of Delaney, Dillon & Co., printers of the regular Democratic ticket, for a split ticket, so called, which should contain the names of all the regular Democratic nominees, except that Mr. Burgess's name should be substituted for that of

one of the Democratic candidates for representative. The tickets were printed hastily, on the Saturday evening preceding the election, and the name of Robert *Howrad* for senator was by mistake inserted for that of Robert Howard, the letters "ar" having been inadvertently transposed by the compositor. The proof was read only by Mr. Delaney, who failed to discover the mistake. Mr. Burgess received one of the ballots before the day of election, but failed, he said, to notice the mistake. The remainder of the ballots were delivered to Mr. Burgess on election day, shortly before nine o'clock, the hour of opening the polls, and he hired persons to distribute them in his interest at six of the Fall River precincts. The mistake was not generally discovered until about ten o'clock in the forenoon, at which time Mr. Burgess says the error was first called to his notice. He immediately caused the ballots to be withdrawn from his distributors, and took them back to the printer, who declared that it was an unintentional error and oversight, and refunded the money paid for them. No evidence was offered to show that any other ballots were cast containing the name of *Howrad* than those so printed by Delaney. It was shown that there was no known candidate for senator in that district by the name of Robert *Howrad*; that the name of *Howrad* was not to be found in the directory or on the voting list of Fall River; and the mayor, the city clerk and other citizens who came before the committee did not know of any person by the name of *Howrad* living in Fall River. There was no evidence to satisfy the committee that the ballots cast for Robert *Howrad* were intended as votes for any other than Robert Howard.

The committee believe that the nature of the error and the accompanying circumstances were such as to justify the conclusion that those voters who cast ballots containing the name of Robert *Howrad* for senator intended to vote for Robert Howard; and, in order that the will of the electors shall not be defeated, that the votes for Robert *Howrad* should be counted for Robert Howard. Under similar circumstances, in preceding cases, votes for Edwin *Waldron* have been counted for Edwin Walden; votes for *Solomon D. Hood*, for Salmon D. Hood; votes for *George Bartholomesz*, for George Bartholmesz; and votes for *Thomas T. Wright* have been counted for Joseph T. Wright. *McGibbons v. Walden*, House, 1877, Loring & Russell's Election Cases, 289; *Hood v. Potter*, House, 1875, *Ib.*, 217; *Hobbs v. Bartholmesz*, House, 1872, *Ib.*, 182; *Wright v. Hooper*, House, 1865, *Ib.*, 100.*

* [NOTE BY THE EDITOR. — The question is regarded by the courts in Massachusetts as one of identity, to be proved in each case as a fact. Upon the question whether *Celeste* and *Celestia* meant one and the same person the court stated the rule:

Second. The committee next considered the challenged ballots. They ascertained that ballots cast in Fall River, both for Mr. Howard and Mr. Neill, were challenged on various grounds, the larger number challenged being for Mr. Howard. They found, however, that the number of those for Mr. Howard which were challenged was less than thirty-nine,—that is, less than the plurality given Mr. Howard after counting for him the *Howard* votes; so that, should they, after receiving evidence regarding each challenged ballot, decide to throw out all those for Mr. Howard and retain all those for Mr. Neill, Mr. Howard would still have a plurality of votes. Further, Mr. Neill informed the committee at this period of their inquiry that he should offer no further evidence. The committee, therefore, decided that they were not called upon to make further investigation as to the challenged ballots.

Third. In asking a recount by the committee of the votes for senator in Fall River, Mr. Neill disclaimed any charge of fraud in connection with the recount by the aldermen, on which the official return was based. He stated, as the reason why he asked that such recount should be made by the committee, that the aldermen had made their recount hastily, and that there were great differences between the first count of the votes, as made by the ward officers, and the subsequent recount made by the aldermen.

The committee found that in making the recount the eight aldermen began by each counting all the votes for senator, but that after thus counting a few precincts they were divided into sub-committees, containing members of both parties, and a portion of the ballots were assigned to each sub-committee to count; that all the members of each sub-committee counted all the ballots so assigned to their own sub-committee; that the number of ballots cast in Fall River was nearly eighty-one hundred; and that between four and five hours were occupied in the recount.

"The province of the court and jury in cases like the present is governed by the following rule: if two names, spelled differently, necessarily sound alike, the court may, as matter of law, pronounce them to be *idem sonans*; but if they do not necessarily sound alike, the question whether they are *idem sonans* is a question of fact for the jury." *Commonwealth v. Warren*, 143 Mass. 568. And see *Commonwealth v. Gormley*, 133 *Ib.*, 580; *Commonwealth v. Brigham*, 147 *Ib.*, 414. There is no presumption of law that Frank E. White is Frank A. White, as it is settled in Massachusetts that a middle name or initial is part of the name, and in a criminal proceeding a variance in regard to it is fatal. *Commonwealth v. Buckley*, 145 Mass. 181. In an election controversy, or similar proceeding involving the question of identity, evidence is admissible to show what person was intended by the name used. So it is competent to show that A. M. Allen was Augustine M. Allen. *Carleton v. Rugg*, 149 Mass. 550; that E. T. Shepard was intended in a commission to take the deposition of E. S. Shepard. *Parker v. Parker*, 146 Mass. 320. See note to *Wright v. Hooper*, Loring & Russell's Election Cases, 102.]

There were but two considerable variances between the first count by the ward officers and the recount by the aldermen. In ward four, precinct B, in the recount Mr. Neill lost seven votes and Mr. Howard gained forty, a gain of forty-seven votes for Mr. Howard. In ward five, precinct A, Mr. Neill gained fourteen votes and Mr. Howard lost fourteen votes, a gain for Mr. Neill of twenty-eight votes. There were other slight variances by which both candidates gained and lost, but Mr. Howard received a plurality of the votes on the first count by the ward officers as well as in the recount by the aldermen, if the *Howrad* votes be counted for him.

Both Mr. Neill and Mr. Howard were present at the recount, and neither made any objection to the proceedings, but both apparently acquiesced in them.

The provisions of the Massachusetts statutes are liberal in granting a recount of the votes cast at an election, after they have been once counted and the result declared by the ward or town officers. The verification of the votes made by a recount, so provided by law, should not be further questioned by a legislative body in the exercise of its power as a final judge of the election and qualifications of its own members unless there are substantial and strong reasons for believing there was fraud or error in the recount, which would change the result.

The committee are satisfied from the evidence that the recount in this case was not hastily or improperly made by the aldermen. There were variations between the first count and the recount made by the aldermen; but the mere fact of such variations existing to the extent named, unaccompanied by any charge of fraud, or more specific reasons for believing that errors had been made by the aldermen sufficient to change the result, would not, the committee believe, justify them in making a second recount.

The committee seem to be sustained in this conclusion by the cases of *Rice v. Welch*, Senate and House, 1868, Loring & Russell's Election Cases, 128; *O'Connor v. Locke*, House, 1878, *Ib.*, 310; *MacMahan v. McGeough*, House, 1883, *Ib.*, 370; *Collins v. Cogswell*, Senate, 1885, *Ib.*, 390.

The adoption of a contrary principle would seem to invite candidates to apply for a recount whenever defeated by a small plurality, on account of the possibility of error which always exists; would entail in the future long and tedious labors on the part of members of the Legislature; and would be opposed to public policy.

Fourth. Upon the contention of Mr. Neill that the votes of ward three should be thrown out, because the names of certain

legal voters in that ward were checked upon the voting list as having been voted upon when, in fact, these voters were absent from the city during the day of election, the committee held to the rule laid down in the case of *Barr et al., petitioners*, in 1876. (Loring & Russell's Election Cases, 254.) The rule as there stated is, that the official return of votes, being *prima facie* correct, cannot be set aside by proof that votes were cast by persons not entitled to vote, unless it is also shown that the ward officers in receiving such votes acted dishonestly or collusively, or unless it is proved that such votes were cast for the successful candidate, and that the rejection of such votes would change the result. This principle is supported by the decisions of the supreme judicial court. (See cases cited in note to *Barr et al., supra.*) Under this rule it was necessary for Mr. Neill to prove not only that the names of the absent voters were voted upon by others illegally, but also that persons so illegally voting, in number at least equal to Mr. Howard's ascertained plurality, voted for Mr. Howard. Mr. Neill informed the committee that he should not offer testimony upon this point beyond the single witness who, while the committee was considering the earlier questions in the controversy, had offered evidence tending to show one such illegal vote for Mr. Howard. The committee consequently did not proceed further upon this request of Mr. Neill.

For the reasons above set forth the committee are of the opinion that Mr. Howard was elected senator in the second Bristol district, and is entitled to the seat which he claims in his petition, and they recommend the passage of the accompanying resolution.

[The resolution declared that the petitioner was duly elected senator and entitled to the seat. The resolution was adopted. — Senate Journal, 1889, d. 77. Mr. Howard qualified and took the seat. — *Ib.*, p. 169.]

HOUSE—1889.

Committee on Elections. — Messrs. WILLIAM H. PREBLE of Boston, *Chairman*; ROBERT H. BOWMAN of Boston, JOHN E. HESLAN of Boston, CHARLES HOWES of Ashfield, FRANCIS W. KITTREDGE of Boston, ELLIS B. PURRINGTON of Mattapoisett and JOHN F. GILLESPIE of Boston.

GEORGE H. BOND *v.* JOHN H. CROWLEY.

Report unprinted, by Mr. HESLAN.

[This was a petition for the seat held by the respondent for the fourteenth Suffolk district. The committee, without stating the reasons, reported leave to withdraw and the report was accepted. — House Journal, 1889, p. 97.]

SENATE—1890.

Special Committee.—HON. HENRY L. PARKER, HON. FREEMAN HUNT and
HON. ALFRED S. PINKERTON.

B. FRANK SOUTHWICK *v.* GEORGE D. HART.

Senate Document, No. 21. Jan. 28, 1890. Report by all the committee.

Recount of Votes refused. Votes will not be recounted by the Senate unless the petitioner shows probable cause for believing that such a mistake was made or fraud committed in ascertaining the result of the vote as would change the result of the election. The burden of proof is upon the petitioner.

Imperfect Marking of Official Ballot. Ballots in the form prescribed by Act of 1889, chapter 413, amending Act of 1888, chapter 436, section 10 (the Australian Ballot Act), although imperfectly marked by the voter will be counted if the intention of the voter is clearly ascertainable.

HENRY WARDWELL *for petitioner.*

CHAS. THEO. RUSSELL, Jr., *for sitting member.*

The special committee to whom was referred the petition of B. Frank Southwick praying for a recount of the ballots cast for senator in the fifth Essex senatorial district, and that the seat now occupied by George D. Hart as senator of said district may be awarded to the petitioner, have duly considered the same, and submit the following report :—

It appears from the original returns made to the secretary of the Commonwealth and transmitted to the governor and council that the vote for senator in said district, as reported, was :—

| | Hart. | Perkins. | Southwick. |
|--------------------------|-------|----------|------------|
| Danvers, | 323 | 41 | 578 |
| Saugus, | 170 | 42 | 262 |
| Groveland, | 119 | 9 | 117 |
| Georgetown, | 134 | 11 | 151 |
| Lynnfield, | 29 | 17 | 62 |
| Boxford, | 41 | 10 | 87 |
| North Andover, | 172 | 23 | 202 |
| Middleton, | 41 | 5 | 75 |
| Lynn, | 1,155 | 82 | 709 |
| Peabody, | 693 | 12 | 595 |
| Wenham, | 44 | 6 | 79 |
| Total, | 2,921 | 258 | 2,917 |

This return would give Mr. Hart a plurality of four votes.

On due notice given by Mr. Southwick to the various towns and voting precincts, a recount was had in all the towns and voting precincts in the district, and amended returns were made to the secretary of the Commonwealth from all the towns and voting precincts except from the towns of Danvers, Saugus and Groveland.

The abstract of the vote after these amended returns had been made, as it appears on file in the office of the secretary of the Commonwealth, was the basis on which Mr. Hart was declared elected, and was as follows :—

| | Hart. | Southwick. | Perkins. |
|--------------------------------|-------|------------|----------|
| Boxford, | 41 | 90 | 10 |
| Danvers, | 323 | 578 | 41 |
| Georgetown, | 135 | 151 | 11 |
| Groveland, | 119 | 117 | 9 |
| Lynn, Wards 1, 6, 7, | 1,155 | 709 | 82 |
| Lynnfield, | 29 | 62 | 17 |
| Middleton, | 41 | 75 | 5 |
| North Andover, | 176 | 203 | 23 |
| Peabody, | 707 | 609 | 15 |
| Saugus, | 170 | 262 | 42 |
| Wenham, | 44 | 79 | 6 |
| Total, | 2,940 | 2,935 | 261 |

This return shows a plurality of five for Mr. Hart.

The recount for the three towns which failed to make amended returns, omitting the vote for Mr. Perkins, which does not affect the result, gave the following :—

| | Hart. | Southwick. |
|----------------------|-------|------------|
| Danvers, | 322 | 581 |
| Saugus, | 170 | 261 |
| Groveland, | 121 | 109 |
| Total, | 613 | 951 |

Making a gain for Mr. Hart of seven votes. So that if these three towns had amended their returns in accordance with the recount, the vote upon which Mr. Hart was declared elected could have given him a plurality of twelve votes instead of five.

The petitioner alleged "that there were errors in counting the ballots in the various places comprising said district which, if

corrected, would show your petitioner to have been elected; that the same construction of the new law under which said election was held was not followed in said places nor any uniformity of method adopted therein of determining what ballots were under said election law valid and what invalid, in the following particulars among others, namely, in certain wards in the city of Lynn, in North Andover and Georgetown and other places ballots marked at the left of the candidate's name were counted, while in Danvers, Wenham, Saugus and other places such ballots were rejected; that in certain wards in the city of Lynn ballots marked in the right margin were not counted, while such ballots were counted in other places in said district; that in certain wards in said Lynn ballots marked otherwise than with a cross, as required by law, were counted; that in Danvers and certain wards in said city of Lynn and others of said towns, ballots were returned as blanks, in which the intention and choice of the voter were indicated, though the ballots were not prepared in strict conformity to the requirements of the statute.

“That if the ballots cast in said district for senator are counted in accordance with any uniform and proper method, either of requiring a strict conformity to the law or giving effect to the choice of the voter where it can by any means be discovered or otherwise, it will appear that your petitioner received a plurality of said ballots and was elected senator.”

By section 31, chapter 299 of the Acts of 1887 and section 1 of chapter 262 of the Acts of 1886, it is provided that when any error is claimed in election returns the board of aldermen in one case and the selectmen of the town in the other case, upon proper notice duly filed, shall within a specified time after an election open the envelopes and examine the ballots thrown and “determine the questions raised.”

It was claimed by the counsel for the sitting member that the intention of these acts, as shown by the language “determine the questions raised,” was to make the recounting final in the absence of fraud and in the absence of any mistake other than what might occur in the exercise of judicial authority. In other words, that the local boards act judicially in determining the questions raised, and that although the body to which the contesting parties claim to be elected may have the arbitrary right to review the action of such local boards, yet that it is not in accordance with precedent or policy so to do.

The counsel for the contestant, on the other hand, contended that the function of these local boards was executive rather than judicial, and that their action was reviewable.

The committee ruled, however, that, to justify the Senate in proceeding to a recount of the votes, or a review of the action of the local boards, the petitioner must show probable cause for believing that such a mistake had been made or fraud committed in ascertaining or assuming the result of the vote as would change the result of the election. *Rice v. Welch*, Loring & Russell's Election Cases, 128; *Burt v. Babbitt*, *Ib.*, 179; *Peck v. Reed*, Russell's Election Cases for 1886, 7; *ante*, p. 5.

The petitioner at the final hearing conceded that if all the defective ballots were counted the result of the election would not be changed, but would give Mr. Hart an increased plurality; but he also claimed that if all defective ballots were rejected upon a recount Mr. Hart would lose thirty-four votes and the petitioner would lose twenty-four, making a net loss of ten for Mr. Hart, and that this would either result in a tie vote or elect Mr. Southwick by a plurality of one.

To adopt the claim of the petitioner, and reject all defective ballots, would be to disregard all precedent (which is to the effect that where imperfect ballots are in question, if the intent of the voter is clearly ascertainable, they should be counted), for, as to a considerable number at least of these defective ballots, there can be no question as to the intent of the voter, and of those where such intent is clear the larger number would seem to have been cast for Mr. Hart.

The evidence, however, in the judgment of your committee, failed to sustain the position of the petitioner, for, proceeding upon his assumption and rejecting all defective ballots, the committee are satisfied upon the evidence that Mr. Hart would still be elected by a plurality of two votes.

Your committee are therefore of opinion that no sufficient evidence has been produced to justify the Senate in proceeding to a recount of votes, the burden being upon the petitioner to produce such evidence, and it is furthermore the judgment of your committee that no sufficient evidence has been introduced to show probable cause for believing that any such mistake has occurred, or any such fraud or illegality has been committed, in ascertaining the result of the election, as would change its result.

As the petitioner has failed to show by a preponderance of evidence sufficient cause for reviewing the action of the local recounting boards, the committee have deemed it unnecessary to pass upon any other question presented for their consideration.

They therefore recommend that the petitioner have leave to withdraw.

[The report of the committee was accepted.]

HOUSE—1890.

Committee on Elections.—Messrs. FREDERICK J. RANLETT of Newton, *Chairman*; JOHN E. HESLAN of Boston, HENRY COOK of Leominster, ALFRED F. FIELD of Leverett, CHARLES MOORE of Waltham, AUGUSTUS G. PERKINS of Boston and JOHN O'BRIEN of Lawrence.

CHARLES H. SHEPARD v. ROBERT K. SEARS.

House Document, No. 70. Feb. 4, 1890. Report by FREDERICK J. RANLETT, *Chairman*; Messrs. COOK and PERKINS dissenting.

Recount of Votes. Recount by Selectmen not necessarily final.—The statutes, section 1 of chapter 262 of the Acts of 1886 (now section 104 of chapter 423 of the Acts of 1890) providing for a recount of ballots cast in a town, and giving the selectmen authority, upon proper petition, to examine the ballots and "determine the questions raised," does not make the selectmen a judicial tribunal whose decision is final. If the petitioner shows substantial and strong reasons for believing that there was fraud or error in the recount by the selectmen, which would change the result, he is then entitled to a recount by the House.

Same. If the selectmen, by reason of a mistaken construction of the law, improperly reject or admit ballots upon the recount by them, and the result is thereby affected, the petitioner is entitled to a recount by the House.

Imperfect Marking of Official Ballot.—The provisions of chapter 413 of the Acts of 1889, amending chapter 436 of the Acts of 1888 (the Australian Ballot Act), in prescribing a cross (X) to be made by the voter, and specifying the place for such mark, as the appropriate margin or place opposite the name of the candidate of his choice for each office, are directory and not mandatory, — so that a ballot informally or imperfectly marked should be counted, if it is possible to determine the intention of the voter.

Same. What Marks to be counted.—A mark in form of a cross (X) to the right of the name of a candidate on the official ballot, not in the square provided but before and on the line with the political designation, will, in an election controversy, be counted as a vote for the candidate against whose name the mark is made, — especially where the voter has marked for candidates for other offices in the same manner throughout the ballot.

Same. Presumption.—A voter who goes to the polls, receives the official ballot, enters the compartment, marks his ballot with a cross consistently throughout, and then deposits it in the ballot-box, is presumed to have intended to vote; and, if possible, the intention should be given effect.

CHAS. THEO. RUSSELL, Jr., for sitting member.

The committee on Elections, to whom was referred the petition of Charles H. Shepard alleging that there was no legal election of representative from the twenty-second Essex district at the election held Nov. 6, 1889, and praying that the votes cast for representative in said district may be examined and legally counted by the House, having considered the same, submit the following report:—

The committee gave extended hearings to the interested parties, the petitioner appearing in his own behalf and the sitting member by counsel.

The twenty-second Essex district is composed of the towns of Danvers and Middleton and is entitled to one representative.

By the original count of the election officers the petitioner appeared to be elected by a plurality of two votes; but by a recount duly made by the selectmen of said towns, at which both candidates were represented, the sitting member appeared to be elected by a plurality of three votes, the vote standing:—

| | |
|-----------------------------------|-----|
| For Robert K. Sears, | 538 |
| For Charles H. Shepard, | 535 |

The difference between the two counts was due to the discovery at the recount of certain additional votes for Mr. Sears as to which no question is now made.

The petitioner alleged, as grounds for a recount by the House, that eleven votes cast and counted in the town of Danvers "were marked irregularly, and were therefore defective under the present law; that of said eleven votes four were for the petitioner and seven for said Robert K. Sears, and that the rejection of said 'defective' votes would leave the result a tie."

The petition contained allegations of other irregularities attending the election, but no evidence was offered upon them, and at the final hearing the petitioner waived consideration of them by the committee, resting his case upon the alleged invalidity of the eleven votes aforesaid.

The petitioner did not contend that the seven ballots thus cast for the sitting member bore upon their face any evidence of corrupt prearrangement by which the secrecy of the ballot might be violated, nor that extrinsic evidence of such prearrangement could be offered.

The counsel for the sitting member contended that section 1 of chapter 262 of the Acts of 1886 (which provides for a recount of ballots cast in towns), by giving the selectmen authority to examine the ballots and "determine the question raised," has constituted the selectmen a judicial tribunal, whose decision was not reviewable by this House except in the exercise of its arbitrary authority.

In view of the opinion that the committee have taken of the ultimate facts of the present case, a determination of this question was not essential to a decision of this contest; but, as the question is logically preliminary to any consideration of the ballots referred to, it seems proper that it should be passed upon.

And the committee are of opinion that the construction contended for should not be adopted by this House; that the true intent of the statute was to provide an opportunity for a review of the original count under circumstances calculated to secure greater accuracy than is possible upon election day; and in such a manner that candidates might ascertain the exact condition of the vote. At this review the selectmen undoubtedly have authority to pass upon the questions raised, but to hold that their decision should be final upon such questions as are likely to be raised under our present Ballot Act would give to selectmen an authority the unrestricted exercise of which by partisan boards might lead to the most serious results.

Most of the "questions raised" under the Ballot Act of 1888 are questions of law, to wit, the construction of that act, whether it is mandatory or directory; and it seems eminently proper that the House, as the judge of the election of its members, should take upon itself the final decision of such questions.

The committee believe that by the adoption of this policy the House will not depart from long-established precedents to the effect that when a petitioner has shown "substantial and strong reasons for believing there was fraud or error in the recount (by the selectmen) which would change the result," he is then entitled to a further verification of the returns by the Legislature. If the "error" which he shows is the improper rejection or admission of ballots by the selectmen, by reason of their mistaken construction of the law, he has brought his case fairly within the above rule. See minority report (accepted by the House) in *Bowker v. Bond*, Loring & Russell's Election Cases, 325.

Upon coming to the consideration of the validity of the eleven votes cast in Danvers, the committee proceeded upon an agreed statement by the parties as to the manner in which the ballots were marked. The voter had in each case marked a perfect cross to the right of the name of the candidate and in a line with it, but before the political designation. Moreover, in each case where this irregularity appeared, the voter had marked for candidates for other offices in the same manner throughout the whole ballot. It was further agreed that if these ballots were rejected the result was a tie, but that if they were counted the sitting member was elected by a plurality of three.

The petitioner contended that the Ballot Act of 1888 and the amendments thereto are mandatory throughout, and that in said eleven ballots, inasmuch as the cross marks were not in the designated square, the voter had failed to comply with the statute requirements and with the card of instructions issued in accord-

ance with the law by the secretary of the Commonwealth, and that the ballots should be rejected.

The statutory provisions bearing upon the form and marking of ballots, so far as they are material in this case, are as follows:—

SECT. 10. The ballots shall be so printed as to give to each voter a clear opportunity to designate by a cross mark (X) in a sufficient margin at the right of the name of each candidate, his choice of candidates. . . .

SECT. 23. On receipt of his ballot the voter shall forthwith, and without leaving the enclosed space, retire alone to one of the voting shelves or compartments so provided, and shall prepare his ballot by marking in the appropriate margin or place, or cross (X) opposite the name of the candidate of his choice for each office to be filled. . . .

SECT. 26. If the voter marks more names than there are persons to be elected to an office, or if for any reason it is impossible to determine the voter's choice for any office to be filled, his ballot shall not be counted. . . . (Chap. 413, Acts of 1889.*)

The card of instructions to voters issued by the secretary of the Commonwealth contained the direction, "Make a cross (X) in the square at the right of the name of each person for whom you wish to vote." And the official ballot prepared by the secretary of the Commonwealth and used at said election contained a square on the right-hand edge of the paper in a line with the name of each candidate and immediately after his political designation.

It has been the tendency of all courts and legislative bodies to construe election statutes with the utmost liberality in favor of the ascertainment of the expressed will of the voter, and whenever the statutes do not most explicitly declare that particular informalities shall avoid the ballot their provisions are considered directory.

This tendency to the liberal construction of election statutes must have been familiar to the Legislatures that passed the Ballot Acts of 1888 and 1889; and, had they intended to make a hard and fast rule to govern the voter in the minutest details of voting, they could have found apt language in which to express such intention. There is but little language in the acts that can, according to the familiar rules of construction, be held to be mandatory. The strongest is to be found in section 26, but the same section contains a clause which seems to negative any construction which should hold the acts to be mandatory in their details:—

If for any reason it is impossible to determine the voter's choice for any office to be filled, his ballot shall not be counted.

* Now sects. 130, 162 of chap. 417 of the Acts of 1893.

It would seem that the necessary implication from this would be that, if it were possible to determine the voter's choice, his ballot should be counted though it might be informal.

Nor do a majority of the committee find anything in the general spirit and purposes of the acts from which they might be inferred to have a mandatory character. They were intended to give protection and independence to the voter, not to restrain him; to provide him with an official ballot and allow him to deposit it in secrecy, not to fetter him with details.

It will be observed that the Ballot Acts of 1888 and 1889 make no allusion to a "square at the right of the name." This expression appears only in the "card of instructions." The acts say "by marking in the appropriate margin or place a cross (X) opposite the name of the candidate." If the claim of the petitioner were to be adopted, the card of instructions would practically be incorporated in the acts and the whole then treated as mandatory, a result which it is difficult to believe was contemplated by the framers of these statutes. Indeed, it might fairly be said that the ballots in question in this case are marked in more technical accordance with the statute, more immediately opposite the candidate's name, than ballots would be which were marked in the square designated upon the official ballot at the right of the candidate's political designation.

Although the Ballot Acts in force in Great Britain and her dependencies are not identical in form and language with our own, they are identical in purpose and spirit, and the cases that have arisen under them are valuable as precedents here. In the leading English case of *Woodward v. Sarsons*, L. R. 10, C. P. 733, the rule is stated to be that "the paper must be marked so as to show that the voter intended to vote for some one, and so as to show for which of the candidates he intended to vote. It must not be marked so as to show that he intended to vote for more candidates than he is entitled to vote for, nor so as to leave it uncertain whether he intended to vote at all, or for which candidate he intended to vote, nor so as to make it possible, by seeing the paper itself, or by reference to other available facts, to identify the way in which he has voted. If these requirements are substantially fulfilled, then there is no enactment and no rule of law by which a ballot paper can be treated as void though the other directions in the statute are not strictly obeyed."

The above rule seems to be in perfect accord with any reasonable interpretation of our own Ballot Act, and the committee are aware of no case in which ballots marked with crosses at the right of candidates' names, but not within the spaces marked off for

them, have been held invalid. Their validity is expressly affirmed in *Shield v. Ennis*, 8 Irish C. L. 240; *Cameron v. McLennan*, Hodg. Election Cases, 671; *Robertson v. Adamson*, 3 Ct. of Sess. (4th Series), 978.

A majority of the committee are therefore of opinion that the eleven ballots in question in this case are not to be rejected for any technical non-compliance with the statute requirements, but that, if the intent of the voters can be clearly ascertained from them, they should, in accordance with familiar precedents, be counted as cast.

As to the intent of the voters in casting these ballots the committee believe that no reasonable doubt can be entertained. A voter who goes to the polls, receives the official ballot, enters the compartment, marks his ballot with a cross consistently throughout and then deposits it in the ballot-box, must be presumed to have performed these acts for the purpose of expressing his choice of candidates; and in the present case the expression of that choice seems clear.

A majority of the committee consequently are of opinion that these eleven ballots were properly counted by the selectmen, and that the sitting member was duly elected as shown by the returns.

They therefore recommend that the petitioner have leave to withdraw.

Messrs. COOK and PERKINS of the committee do not concur in the report.

[The report of the committee was accepted.]

HENRY JONES *v.* LEWIS P. LORING.

House Document, No. 92. Feb. 11, 1890. Report by FREDERICK J. RANLETT, *Chairman*.

Recount of Votes refused. The right of recounting votes will be exercised only upon satisfactory preliminary proof of such substantial facts or well-grounded causes of suspicion as would induce strong conviction that fraud or mistake, prejudicial to the contestant, might appear upon such examination; and in the absence of such preliminary proof the returns of city and town officials should stand as correct.

Same. Rule applies to Recount of Marks upon Official Ballot. The Acts of 1888, chapter 436, and of 1889, chapter 413 (the Australian Ballot Act*), make no change in the rule governing the recount of votes by the House. The marks made by voters upon the official ballots will not be recounted by the House unless the petitioner shows such substantial facts or well-grounded causes of suspicion as would induce strong conviction that illegal or fatally defective votes had been cast and counted, and that their number was sufficient to change the result.

Imperfect Marking of Official Ballot. What Marks counted. Ballots with the cross (X) marked, not in the square or place designated, but on the line between the residence and political designation of a candidate, will in an election controversy be counted for such candidate, in absence of proof that such mark was intended to reveal the identity of the voter.

Same. Ballots with the cross (X) marked, not in the square or place designated, but on the line at the left of the name of the candidate, will in an election controversy be counted for such candidate, in absence of proof that such mark was intended to reveal the identity of the voter.

Same. Ballots marked with a caret or inverted V, or with a character consisting of two oblique strokes, like a rude letter Y, in the square designated on each ballot, opposite the name of the candidate, will in an election controversy be counted for such candidate, in absence of proof that such marks were intended to reveal the identity of the voter.

W. G. A. PATTEE *for petitioner.*

JOSEPH O. BURDETT *for sitting member.*

The committee on Elections, to whom was referred the petition of Henry Jones for the seat now held by Lewis P. Loring as representative from the fourth Plymouth district, having met the parties and heard their evidence and the arguments of counsel, submit the following report:—

The said district is composed of the towns of Hingham, Hull and Cohasset, and is entitled to one representative.

The petition alleged, and it was not disputed, that the total vote for representative in said district at the annual state election was declared as follows:—

| | |
|----------------------------------|-----|
| For Lewis P. Loring, | 443 |
| For Henry Jones, | 441 |
| For Thomas Stephenson, | 64 |

* Now chapter 417 of the Acts of 1893.

And that at a recount duly had the vote was declared as follows : —

| | |
|----------------------------------|-----|
| For Lewis P. Loring, | 444 |
| For Henry Jones, | 442 |
| For Thomas Stephenson, | 64 |

The difference between the two counts was due to the discovery at the recount of an additional ballot for Mr. Jones which was originally overlooked and to the admission of a ballot for Mr. Loring which was originally rejected. These ballots are hereinafter referred to as Nos. 22 and 23 respectively.

The petitioner alleged “that in said election in said towns of Hingham and Cohasset, and at the recount of votes in said towns, certain votes which were marked illegally, improperly and in violation of the provisions of chapter 436 of the Acts of 1888 and acts in amendment thereto, were illegally, improperly and irregularly counted for said Lewis P. Loring and for said petitioner, and that if the aforesaid votes are not counted for said Loring and said Jones, your petitioner received a majority of votes cast in said district . . . and was duly and legally elected.”

The petition contained proper specifications of the alleged defective ballots, and a witness who represented the petitioner at the recount in Hingham and Cohasset testified to the number and marking of said ballots substantially as alleged.

The sitting member, on the other hand, produced evidence which tended to contradict the petitioner’s testimony as to Hingham and Cohasset ballots, and also further evidence, which was not contradicted by the petitioner, of additional informal ballots in all the towns of the district.

At the conclusion of the testimony counsel for the petitioner contended that, although the committee might not be satisfied from the evidence that the petitioner should be declared elected, a *prima facie* case had nevertheless been made out which entitled the petitioner to have the ballots examined and recounted by the committee.

The rule governing applications for a recount of votes by the House is well established by a long line of decisions, and is, perhaps, best stated as follows : —

“The right of recounting votes will be exercised only upon satisfactory preliminary proof of such substantial facts or well-grounded causes of suspicion as would induce strong conviction that fraud or mistake, prejudicial to the contestant, might appear upon such examination; and in the absence of such preliminary

proof the returns of city and town officials should stand as correct." *Rice v. Welch*, Loring & Russell's Election Cases, 128.

The committee find nothing in our present Ballot Act, or in the character of the questions that arise under it, that should lead to any modification of the above rule. Its object is clear, — to prevent candidates who are defeated by a close vote from coming to the House for a recount upon the mere possibility that it may develop something in their favor. The rule, therefore, is that the petitioner must show substantial facts tending to the conclusion that a recount would or might change the result. The simple fact that the vote is close does not, of itself, affect the question.

As applied to the present case the rule would require that the petitioner should show such substantial facts or well-grounded causes of suspicion as would induce strong conviction that illegal or fatally defective votes had been cast in the district, and that their number was sufficient to change the result. The petitioner is not required to prove this beyond a reasonable doubt; but, on the other hand, he is not entitled to have the case considered upon his *ex parte* testimony; it must appear upon the whole preliminary proof that there is probable cause for believing that a recount might change the result.

Adopting this rule, and construing the testimony with considerable latitude in the petitioner's favor, the committee find that the following "informal" ballots were cast and counted in said district.

Nos. 1 to 11. Ballots with a cross mark between residence and political designation: Loring, 7. Jones, 4.

Nos. 12 and 13. Ballots with a single oblique stroke at the right of the name and in the compartment with it, or in the square: Loring, 1. Jones, 1.

Nos. 14 and 15. Ballots with a cross between Christian name and surname: Loring, 1. Jones, 1.

Nos. 16 to 20. Ballots with a cross mark at the left of the name: Loring, 3. Jones, 2.

No. 21. Ballot with a caret, or inverted V, in the square: Loring, 1.

No. 22. Ballot with a character consisting of two oblique strokes, like a rude letter Y, in the square: Jones, 1.

No. 23. Ballot with a figure 2 in the square, other candidates being marked with other figures: Loring, 1.

In each of the above-described ballots (except No. 23) the voter had marked for candidates for other offices in the same manner throughout his ballot. No evidence was offered to prove that any of these marks were intended to reveal the identity of the voter.

Upon the question whether the above ballots were properly counted as being in substantial compliance with the requirements of the Ballot Act (Acts of 1889, chap. 413) the committee report their conclusions, so far as they are material, as follows:—

Nos. 1 to 11, being of the same character as those described in their former report, accepted by the House (*Shepard v. Sears, ante*, p. 30), are governed by that case, and were properly counted.

Nos. 12 to 15, being equally divided between the candidates, do not affect the result.

Nos. 16 to 20. As to the validity of these ballots the committee entertain no doubt. Section 23 of the Ballot Act, which is the only section that contains directions to the voter how to mark his ballot, provides that he “shall prepare his ballot by marking in the appropriate margin or place a cross opposite the name of the candidate of his choice. . . .” It does not say to the right of the name; and although section 10 provides that “the ballots shall be so printed as to give to each voter a clear opportunity to designate by a cross mark in a sufficient margin at the right of the name his choice of candidates,” it is not believed that these sections, one containing directions to the secretary of the Commonwealth and the other containing directions to the voter, can be fairly construed together so as to bind the voter to an exact observance of this matter of detail. If the directions in the statute are not explicit, the voter cannot be held to the most rigid construction that can be put upon them; on the contrary, when the question is as to nullifying the will of the voter, considerable latitude may fairly be allowed to a voter who seems to have considered that “the appropriate margin” was that margin which is nearest the candidate’s name, “opposite” which he is directed to mark.

Although the English Ballot Act is more explicit than our own, and directs the voter to “place a cross on the *right-hand side* opposite the name of each candidate for whom he votes,” it was nevertheless held in the carefully considered case of *Woodward v. Sarsons*, L. R. 10, C. P. 733, that a ballot marked with a cross at the left was valid, as substantially indicating that the voter intended to vote for the candidate against whose name it was placed. In cases in which crosses at the left have not been counted the reason generally given is that the mark in that place may be an identifying one, a reason which the committee believe does not apply to this case.

Nos. 21 and 22 may be considered together, and the committee are of opinion that these marks, though carelessly made, are in substantial compliance with the statute. Even in courts that have been inclined to place the strictest construction upon the

Ballot Act the rule has been adopted that rough or imperfect crosses, or marks involving the use of more than a single stroke, are to be treated as crosses; thus in *Robertson v. Adamson*, 3 Ct. of Sess. 978, certain marks with a loop at the top, like a rude figure 1 or 7, were counted, and in *Hawkins v. Smith*, 8 Can. Sup. Ct. 676, a character described as an inverted V was held valid. The committee believe that a rule as liberal as this may safely be adopted here.

The committee are further of the opinion that none of the marks above referred to are liable to any reasonable suspicion of being upon their face identifying or preconcerted marks. They are evidently the result of carelessness, not of corruption.

The exercise of such ingenuity as might be expected of a voter who was disposed, by corrupt prearrangement, to put a distinguishing mark upon his ballot, would readily devise some method of identification that would be equally clear to a party to the arrangement, and vastly more difficult of detection by the election officers, or others not parties to it. That such a voter should risk the validity of his ballot by marking it so conspicuously as to call immediate attention to the peculiarity seems hardly within the range of probability.

It would further seem that such an over-suspicious interpretation of irregular marks would afford counting boards an excuse for the rejection of informal ballots rather than any valid reason for so doing, and would result in the disfranchisement of honest though heedless voters rather than the punishment of unscrupulous ones.

In the present case, at least, there being no extrinsic evidence that the secrecy of the ballot has been violated, and the peculiarities of marking being common to the ballots for each candidate, the committee believe that the argument referred to is entitled to no weight.

The marks are, further, of such a character as clearly to reveal the voter's intention. They are marks of choice, not of cancellation. There being three candidates upon the ballot, of whom only one was to be elected, the voter has in each instance set his mark opposite the name of one. The only reasonable inference is that he intended to vote for that candidate. According to the general rule applicable to the construction of election statutes, and according to the spirit of this act as manifested in section 26, the intent of the voter must govern, and his ballot be counted.

It is, therefore, the judgment of the committee that the ballots referred to, being in substantial compliance with the requirements of the statute, and not open to the objection of violating its spirit, and furthermore, clearly revealing the intent of the voter, were properly counted for the respective candidates.

As to ballot No. 23 it is not necessary to express an opinion, for even if it be rejected, the sitting member would still have a plurality of one vote.

The committee are therefore of opinion that no satisfactory evidence has been produced to show probable cause for believing that a sufficient number of illegal ballots were cast at said election to change the result.

They therefore unanimously recommend that the petitioner have leave to withdraw.*

[The report of the committee was accepted.]

* [NOTE BY THE EDITOR. — *Rule as to Count of Imperfect Marks on Official Ballot.* In the above case and the two preceding cases, the Senate and House indicate the intention of applying to the new system of voting, as far as applicable, the same rule of construction that was followed under the old system. It was early settled by the court in Massachusetts (*Strong, pet.*, 20 Pick. 484) that, in determining an election, "the only object should be to ascertain the expressed will of a majority of the electors, and with this in view, and with the guidance of good practical sense, unfettered by technical rules and nice distinctions, there will be no danger of mistaking the voice of the electors." Morton, J., p. 493. This rule, that the intention of the voter should control the construction and effect of the vote, has invariably been followed in election controversies. Thus, under the old system of voting, votes for persons under a wrong or misspelled name have been counted for the candidate, if the intention was reasonably clear. *Howard v. Neill, ante*, p. 23; *Wright v. Hooper*, Loring & Russell's El. Cases, note, p. 102. The new system (Australian Ballot Act) makes no change in the right of election. It relates entirely to the mode of election. The right to vote and to have the vote counted remains precisely as before. The method of expressing the intention of the voter alone is changed, and the details of the change are mandatory only so far as they are necessary to carry out the purposes of the new law. The leading purpose was to secure greater freedom and secrecy in voting by providing an official ballot, a marking in a secret compartment, and a deposit of the ballot in the ballot-box without exhibition. If these purposes are accomplished, the remaining provisions of the law as to the precise mode and place of marking the ballot may well be regarded as directory only. The voter then must (1) use an official ballot; (2) mark it in such a mode as to show by inspection of the ballot an intention to vote for a particular candidate; (3) and show no intention by marking to put an ear mark on the ballot for the corrupt purpose of revealing his identity. If the voter observes these requirements, so that his vote is not void, either for uncertainty or for attempt to violate the required secrecy, his vote should be given effect. As said by a writer in 1874, in the *Journal of Jurisprudence* (Scotland), Vol. 18, p. 199, 201: "It seems to us that in determining the question there are just two things which the returning officer has to consider, — (1) Is it clear for whom the voter intends to vote? (2) Is the mark such as to identify the voter? If he keeps a straight course between the Scylla of uncertainty and the Charybdis of identification the vote is good, although the mark is not made precisely in the way pointed out in the directions."

The Rule in England. The construction of the English act was established in 1875 in *Woodward v. Sarsons*, L. R. 10, C. P. 733. It is "necessary that the absolute enactment that the paper should be marked secretly should be obeyed exactly, but it would be sufficient that the manner of marking the paper should be obeyed substantially. If these two enactments be so obeyed, there is no material breach of the act. . . . The paper must be marked so as to show that the voter intended to vote for some one, and so as to show for which of the candidates he intended to vote. It must not be marked so as to show that he intended to vote for more candidates

than he is entitled to vote for, nor so as to leave it uncertain whether he intended to vote at all, or for which candidate he intended to vote, nor so as to make it possible, by seeing the paper itself, or by reference to other available facts, to identify the way in which he has voted. If these requirements are substantially fulfilled, then there is no enactment and no rule of law by which a ballot paper can be treated as void, though the other directions in the statute are not strictly obeyed. If these requirements are not substantially fulfilled the ballot paper is void, and should not be counted; and if counted, it should be struck out on a scrutiny. The decision in each case is upon a point of fact to be decided, first by the returning officer and afterwards by the election tribunal on petition." (Lord Coleridge, C. J.) Under this rule, marks of a character, or in places, other than as prescribed by the directions, but indicating clearly the intention of the voter and not designed to reveal his identity, were counted. This case was followed in 1880, in the Berwick-on-Tweed case, *McLaren v. Home*, 3 O'Malley & Hardcastle's El. Cases, 178, where the court counted imperfect marks under application of above rule. This principle of liberal construction of the ballot acts was again recognized in *Ackers v. Howard*, 16 Q. B. D. 739, and in the Buckrose Division case, 4 O'Malley & Hardcastle's El. Cases, 110. A mark of such a character as to show an intention of the voter to reveal his identity, or to create reasonable suspicion of such intention, will not be counted as a vote. Cases, *supra*; Stepney case, 4 O'Malley & Hardcastle, El. Cases, 34; 2 Rogers' Elections (15th ed.), 684. In Ireland the liberal construction adopted in England seems to be followed. Athlone case, *Sheil v. Ennis*, 2 O'Malley & Hardcastle's El. Cases, 186.

The Rule in Scotland and Canada. The Scotch rule is less liberal, owing apparently to a difference in the presumption drawn from the character of the mark. In England, unless the mark shows on its face an intention to reveal identity, or such intention is proved, the presumption is that it was made with the honest purpose of voting. In Scotland, if the mark differs essentially from a cross, or is of such a character that it may lead to identification, the presumption is against its validity. In the Wigtown case, 2 O'M. & H. El. Cases, 215, *Haswell v. Stewart*, 1 Ct. of Sessions, 4th series, 925, Lord Neaves stated the rule: "I think it essential to a good vote that the voter should make the cross thus pointed out, and that any mark materially different would be a deviation from what is prescribed and a failure to fulfil the requirements of the statute. . . . I think that this declaration of nullity does not require that there should be absolute proof of a design or intention on the part of the voter to be identified," p. 928. Lord Ormisdale, concurring, said: "While on the one hand there must be a reasonable and substantial compliance with the provisions of the act, on the other hand, trivial or unimportant deviations, such as might not unfairly be held to be incidental to the performance of the piece of work in question by different individuals of different ages, habits and conditions, ought to be disregarded, provided that the true object and intention of the voter are free from serious doubt, and that there is not sufficient ground for holding in a fair and reasonable sense that there is any mark or writing on the ballot paper whereby the voter can be identified," p. 930. Lord Benholme, dissenting, said: "Where a cross has been made, and where that cross is so placed as to leave no doubt for which candidate the voter intended to vote, I am not able to agree with the principle upon which my brethren have determined to reject several such voting papers. In the first place, I think it is not fatal that the cross is put on the left hand, or above or immediately below, — provided it is so placed as to leave no doubt as to the candidate for whom the vote was intended. Further, where a proper cross has been made designating the intention of the voter to vote for a particular candidate, and leaving no doubt as to what candidate he intended to vote for, I am not prepared to say that the addition of a score, or a double leg to the cross, — which may have been the result of awkwardness or accident, or of not seeing exactly how he was to commence the cross, — ought to be visited upon the voter by nullifying his vote," p. 932. The decision of the court was affirmed in 1876 in *Robertson v. Adamson*, 3 Ct. of Sessions, 4th series, 978, and in 1886 in *Anstruther v. Williamson*, 13 *Ib.*, 577.

The Canadian courts seem inclined to follow the Scotch rule. Ritchie, C. J., in the Bothwell case, *Hawkins v. Smith*, 8 Can. Sup. Ct. 676, states the rule: "After a good deal of consideration I find it impossible to lay down a hard and fast rule by which it can be determined whether a mark is a good or bad cross. I think that whenever the mark evidences an attempt or intention to make a cross, though the cross may be in some respects imperfect, it should be counted, unless, from the peculiarity of the mark made, it can be reasonably inferred that there was not an honest design simply to make a cross, but there was also an intention so to mark the paper that it could be identified, in which case the ballot should, in my opinion, be rejected. But if the mark made indicates no design of complying with the law, but, on the contrary, a clear intent not to mark with a cross as the law directs, as, for instance, by marking a straight line or a round O, — then such non-compliance with the law, in my opinion, renders the ballot null; the irresistible presumption from such a plain and wilful departure from the terms of the statute being that it was so marked for a sinister purpose. I am aware that in coming to this conclusion I am differing from the decision in the case of *Woodward v. Sarsons*, *supra*, but I cannot bring my mind to the conclusion that a ballot should be refused when there is evidence of an honest attempt to make a cross. One ballot objected to was marked, as may familiarly be said, by an inverted V, — thus, Δ . I think this good as showing an intention to make a cross and no indication of an intent at identification," p. 696. For other Canadian cases see the North Victoria case, *Cameron v. McLennon*, Hodgkin's El. Cases, 671, 11 Can. L. Jour. 163; *White v. Mackenzie*, 20 Low. Can. Jurist, 22; *Grant v. McCallum*, 12 Can. Law Jour. 113; the South Wentworth case, *Olmeade v. Carpenter*, Hodgkin's El. Cases, 531; *Dionne v. Gagnon*, 9 Quebec L. Rep. 20; *Bernatchez v. Fortin*, *Ib*, 81; *Jenkins v. Brecken*, 7 Can. Sup. Ct. 247.

The English and Scotch rules of construction have been applied to the special circumstances in each of the cases cited *supra*, and marks of a certain character, or in a certain place, counted or rejected as votes, according to the rule followed and its application to the facts presented. Each case necessarily will depend upon the inspection of the ballot questioned, and the peculiar circumstances. The decisions as to marks and places are digested by Mr. Wigmore in the appendix to his work on the "Australian Ballot System," pp. 190-194.

Voter must not intend to reveal his Identity. The inconsistency in the Scotch rule is the assumption that an imperfect or incorrect mark is in some cases made for the purpose of disclosing identity, and in other cases without such intention. The rule to be logical should reject every mark that is not a perfect cross in the proper place, but the Scotch courts expressly decline to do this. If the voter has this intention he can give it effect just as well by a slight change in, or addition to the cross, or in the place of marking, — insufficient under any judicial decision to justify the rejection of the vote, — as he can by a greater, and (under the Scotch rule), fatal, deviation. While the mark may be of such a character as of itself with the other circumstances to suggest such corrupt intention, such intention should not be presumed. The question is in each case one of fact, — did the voter intend to vote, and without disclosing his identity? The first question should be decided by the inspection of the ballot, and evidence of surrounding circumstances. The voter's statement of his intention would be inadmissible, for the same reason that his evidence for whom he intended to vote is inadmissible. The ballot, like a written contract, speaks for itself. (See note to Loring & Russell's El. Cases, 103-105.) The question, whether by the marking of the ballot the voter intended to disclose his identity, would be decided: *first*, by inspection of the ballot in connection with the other ballots cast in the election. If, for instance, a number of ballots were found with a peculiar mark, or marked in a peculiar place, all for the same candidate, the circumstance would be suspicious. *Second*, to show a corrupt intention extrinsic evidence of intimidation or bribery would be admissible in an election controversy. Returning officers in counting could not go outside of the ballots. In the absence of fraudulent intention, ballots, even if containing marks which might identify the voters, should be counted. The reasons are thus stated by Mr. Wigmore: "1. The words of our statutes do not expressly declare votes having identifying marks to be void; it should therefore

clearly appear upon sufficient evidence—the mark alone being only a part of that evidence—that the vote was cast under a corrupt arrangement, before the ballot is thrown out. 2. The precaution disfranchises too many in proportion to the illegal votes which it eliminates; too much good wheat is lost to keep out a little chaff. 3. The marking of a vote in a special way requires so much prearrangement, and can be practised only on so small a scale, that it is an evil not worth trying to combat in this way. 4. Too much power is put into the hands of the officials who are to count the ballots. 5. Too much delay would probably be caused by the necessity of deciding, at the time of counting, upon the validity of informal marks." *Australian Ballot System*, p. 194.

HOUSE—1891.

Committee on Elections.—Messrs. CHARLES M. BACHELLER of Lynn, *Chairman*; MORTON E. CONVERSE of Winchendon, RICHARD F. BARRITT of Concord, EDWARD C. HOWE of Shrewsbury, WILLIAM CANNON of Boston, JOHN O'BRIEN of Lawrence and SAMUEL E. RIPLEY of Montague.

HERMAN BIRD v. MALCOLM E. RIDEOUT.

House Document, No. 155. March 4, 1891. Report by CHARLES M. BACHELLER, *Chairman*.

Recount of Votes refused. The House of Representatives will not recount votes for representative merely because the member is returned as elected by a majority of one vote, and the contestant claims that the count was incorrect.

E. B. HALE *for petitioner*.

E. R. CHAMPLIN *for sitting member*.

The committee on House Elections, to whom was referred the petition of Herman Bird for a recount of votes cast for representative in the fourth Middlesex district, having met the parties and heard their evidence and the argument of counsel, present the following report:—

The said district is composed of precincts one, two, three, four, and five of the fourth ward in the city of Cambridge.

The petition alleged that by a count of the election officers in said district, Malcolm E. Rideout appeared to be elected by a plurality of three votes, namely:—

| | |
|-------------------------------|-----|
| Malcolm E. Rideout, | 881 |
| Herman Bird, | 878 |

And that by a count of the votes by the board of aldermen, that said Rideout was finally declared to be elected by a plurality of one vote, namely:—

| | |
|-------------------------------|-----|
| Malcolm E. Rideout, | 881 |
| Herman Bird, | 880 |

The petitioner based his claim to a recount upon two grounds:—

First. That on a final count of the ballots in precinct four, that your petitioner has reason to believe was incorrect, and that by an accurate recount thereof it will appear that your petitioner was duly and legally elected.

Second. That your petitioner further alleges that among the ballots counted for said Rideout was one that was cast in precinct two by one George W. Chipman, whose vote was duly and legally challenged at the time it was offered ; and your petitioner says that said Chipman was not a legal voter in said precinct or in said district at the time he voted, and he avers that said ballot ought not to be counted, and that it cannot legally be counted.

At the close of the testimony and the argument of counsel, the committee did not feel satisfied with the evidence to warrant the petitioner to have a recount of the votes, as the rule governing a recount of votes by the House is well established by a long list of precedents, and among others is *Rice v. Welch*, Loring and Russell's Election Cases, 128, which object is to prevent candidates who are defeated by a close vote from coming to the House for a recount upon the possibility that it might develop in their favor.

On the second part your committee were of the opinion, from all the evidence that was offered, that the said George W. Chipman was entitled to his vote in precinct two of the city of Cambridge.

They therefore unanimously recommend that the petitioner be given leave to withdraw.

[The report of the committee was accepted. — House Journal, p. 398.]

JAMES D. DOHERTY v. ROGER HAGGERTY.

House Document, No. 399. April 7, 1891. Report by RICHARD F. BARRETT.

Paster upon Official Ballot Counted. At a special election for representative, all ballots bearing the name of but a single candidate will be counted for him,—whether originally printed on the ballot or printed upon a paster and pasted over the original name, so that but one name was visible for the candidate.

Same. Marking Ballots. At such election, all ballots upon which the two names appeared, one originally printed and one affixed by paster to the ballot, and which contained the mark opposite the name of one candidate, will be counted for that candidate.

Same. At such elections, all ballots containing the names of the two candidates, but not containing the X mark against either, will be counted for neither.

CHARLES F. PAGE *for petitioner.*

JOHN F. CRONAN *for sitting member.*

The House committee on Elections, to whom was referred the petition of James D. Doherty for a recount of votes in the seventh Suffolk district cast at the special election held Feb. 3, 1891, and that he may be declared to be the representative from that district, respectfully submit the following report:—

The committee gave four hearings to the parties interested. Both parties were represented by counsel. At the suggestion of your committee the House requested the opinion of the Attorney-General as to the rules of law which should govern the committee in passing upon the evidence submitted to them at the hearings. The questions of the House, with the Attorney-General's answers thereto, are hereby appended as part of this report.*

On an examination of the ballots your committee find that at said election there were cast 848 ballots, of which 841 should be legally counted; of these—

| | |
|-------------------------------------|-----|
| Roger Haggerty received | 437 |
| James D. Doherty received | 402 |
| A. W. Tilton received | 1 |
| F. H. Partridge received | 1 |

There were also cast one blank ballot and six ballots from which the intention of the voter could not be ascertained.

We therefore find that Roger Haggerty is lawfully entitled to his seat as a member of this House from the seventh Suffolk district.

The attention of your committee was specially directed to eighty-

* The questions propounded by the House and the answers of the Attorney-General immediately follow this report.

nine ballots, no question being raised by either party as to the rest. Of these eighty-nine ballots your committee counted all ballots bearing the name of but a single candidate, whether originally printed on the ballot or printed upon a paster and pasted over the original name, so that but one name was visible for the candidate.

Your committee counted all ballots on which there appeared two names, one originally printed, and one affixed by paster to the ballot, which contained an X mark opposite the name of a candidate, for that candidate. Your committee did not count ballots containing the names of two candidates, but bearing no X mark against the name of either.

The committee does not find that persons were permitted to cast ballots who were not legally qualified voters in that they were not voters previous to May 1, 1857, nor disabled by blindness or other physical disability, who, being unable to read or write, were assisted by the election officers, without a proper certificate being endorsed; nor does the committee find that the election officers, having in their possession behind the rail in the place reserved for voters, stickers or pasters, solicited or requested voters to attach them to their ballots, nor that persons voted upon the names of voters absent from the State at the time of said election. No claim was made that such was the case, except in connection with one vote, and the decision of your committee either way upon this claim would not change the result to which your committee has arrived.

Your committee does not find that parties employed by either candidate were permitted in his behalf to solicit voters, within the space reserved, to cast ballots for either candidate.

It was claimed at the hearings that the election officers permitted the sample ballots posted in the room to be mutilated in the interest of said Haggerty, so that voters were liable to be misled, and were misled thereby. Sample ballots bearing the name of said Doherty and stickers bearing the name of said Haggerty, pasted beneath said Doherty's name, and also bearing evidence of having been posted somewhere, were shown to the committee. Your committee does not find, however, that the election officers consented, or permitted any person with their knowledge to affix any paster to sample ballots posted in the room, nor was there any evidence that voters were actually misled thereby, nor the election affected. The committee therefore recommend that the petitioner have leave to withdraw.

In this report all members of your committee concur.

[The report of the committee was accepted. — House Journal, p. 698.]

OPINION OF THE ATTORNEY-GENERAL.

Questions propounded by the House of Representatives to the Attorney-General (Hon. ALBERT E. PILLSBURY), March 23, 1891, in relation to the preceding case; and his answers thereto, March 30, 1891.*

Pasters upon Official Ballot. A voter can insert in the space left at the end of the list of candidates on the official ballot the name of the candidate for whom he would vote, by pasting thereon a printed slip bearing the name of such candidate and making the X mark in the space to the right of the name so pasted, and the ballot should be counted for such candidate.

Necessity of marking Ballot. At a special election for representative, where the official ballot bears only one name, — and some official ballots are cast bearing such name and none other, but without any X or other mark, the ballot can be counted for the candidate named.

Same. Where, at such election, the official ballot bore the name of only one candidate, — and the printed name of another candidate had been pasted in the space below it, — and no mark cross made against either name, the ballot cannot be counted for either candidate.

Marking Ballots — Place where. Where, at such election, the official ballot bears the name of only one candidate, and the X mark is made, not in the space to the right of the name, but in various other places on the face of the ballot, it can be counted for such candidate.

Same. A mark upon the back or outside of a ballot is not a mark in the sense of the law, and cannot be counted as indicating the voter's choice.

Same. Where, at such election, the official ballot bears only one name, and the name of another candidate is pasted, not in the space below it, but in the same space, but not covering the name of the first candidate, and the X mark is made in the space to the right of both names, such ballot can be counted for either candidate, according to the voter's choice, if his intentions can be determined; and the writing or pasting of the name of a candidate on a ballot is competent evidence to show his intention to vote for such candidate.

Same. Where, at such election, the official ballot bears only one name, and that of another candidate is pasted over it, covering it, and the X mark is made in the space to the right of it, such ballot can be counted for the candidate whose name is so pasted.

Same. If in such case the paster does not fully cover the name printed on the official ballot, but only partially obliterated it, and the X mark is made in the proper space, the ballot will be counted for the candidate whose name is pasted, if under the circumstances the voter's choice can be determined.

Same. *How far Provisions of Law Mandatory.* The provisions of law are mandatory so far as to require some mark upon the face of the ballot sufficient to make it possible to determine the voter's choice. The provision as to "insertion" or "filling in" the name of any candidate in the blank space at the end of the list of candidates, is not mandatory, and it is not necessary that such "insertion" or "filling in" should be in that particular space.

Same. *Power of House to decide what Ballots Legal.* The House, or its committee, subject to its approval, has under the Constitution power to determine the evident intent of the voter from an inspection of the ballot, where the strict letter of the law has not been complied with. While its power is absolute it has been accustomed in such cases to follow the rules of law.

* For convenience in reference the answer is published after each question, *seriatim*.

Same. Counting Ballots marked "Cancelled." If ballots otherwise entitled to be counted are marked "Cancelled" by the mistake or fraud of an election officer, they can be counted upon proof of the regularity of the ballot, and of such mistake or fraud on the part of an election officer.

First. Can a voter legally "insert" or "fill in," in the space left at the end of the list of candidates on the official ballot, the name of the candidate for whom he would vote, by means of pasting thereon a printed slip bearing the name of such candidate and making the X mark in the space to the right of such name so pasted on said official ballot, and should such ballot be counted for the candidate whose printed name is thus pasted on?

Answer. A voter can legally "insert" or "fill in," in the space left at the end of the list of candidates on the official ballot, the name of the candidate for whom he would vote, by pasting thereon a printed slip bearing the name of such candidate and making the X mark in the space to the right of such name so pasted on the official ballot, and such ballot should be counted for the candidate whose printed name is thus pasted on. The blank space is as appropriate to the reception of a pasted slip as of a written name, and the language of the statute, to "insert" or "fill in" the name, applies as well to the one case as to the other; and it must be presumed that the Legislature was aware of the general use of "pasters," so called, and did not intend to forbid their use by provisions which, taken as they read, clearly permit it.

Second. At a special election for representative to the General Court, where the official ballot bears only one name and some official ballots are cast bearing such name and none other, but without any X or other mark on such ballot, can the ballots so cast be counted for such candidate?

Answer. At a special election for representative to the General Court, where the official ballot bears only one name and some official ballots are cast bearing such name and none other, but without any X or other mark on such ballot, the ballot so cast can be counted for such candidate. In such a case, which would very rarely arise, there is no "choice" of the voter, in the sense of the statute, to be indicated by the statutory mark. "Choice" implies a selection of one out of two or more names, and if the ballot bears but one name there is nothing upon which this right of choice is to be exercised. Any other construction would deprive the act of the voter in such a case of all significance or legal effect, and this result is to be avoided if possible. But in my opinion, as will appear below, this applies only to a ballot bearing but a single name.

Third. At a special election for representative to the General Court, where the official ballot bore only the name of one candidate and the printed name of another candidate had been pasted in the blank space left at the end of the list of candidates, but without a X mark or other mark in the space at the right of either name, can such ballot be counted for either candidate, and if so for which?

Answer. At a special election for representative to the General Court, where the official ballot bore only the name of one candidate and the printed name of another candidate had been pasted in the blank space left at the end of the list of candidates, but without a X mark or other mark in the space at the right of either name, or elsewhere upon the ballot, as I understand the question, such ballot cannot be counted for either candidate. This involves the important and difficult question how far the statutory requirement of the mark, as the means of designating the voter's choice, is mandatory. The form of the provision (Acts of 1889, chap. 419, sect. 23), that the voter "shall prepare his ballot by marking in the appropriate margin or place a cross (X) opposite the name of the candidate of his choice," does not settle the question, as such language, though in form mandatory, may be and often is construed as directory, and doubtless is to be so construed in various other provisions of this act; but there are other general considerations which seem to determine the matter. The great purpose of this act is, unquestionably, to promote the purity of the ballot, by insuring a free and intelligent expression of the voter's choice, in secret and on the spot; and the intent of the act, so far as it concerns the question now under consideration, seems clearly to be that he shall indicate his choice by the affirmative act of marking the ballot, under the circumstances of secrecy and security against interference or molestation with which the act surrounds him at the polls; and while it is a general rule of election law that statutes in derogation of the right to vote are ordinarily to be construed liberally in favor of the exercise of the right, it is also a settled rule that a statute is to be construed, so far as may be, in the light and in the direction of its leading and obvious purposes; and this warrants, if it does not require, in this case a somewhat stricter construction in favor of the purity, the secrecy, and the intelligence of the ballot, than has ordinarily been applied to election laws. It is to be observed also that the act imposes many other express restrictions upon the right to vote which are obviously peremptory, and which, though in derogation of the right, the Legislature must be supposed to have considered

essential to the main purposes of the act. There is no direct authority, so far as I am aware, upon the question whether the requirement of the mark is mandatory, but it is significant and is not to be overlooked that in the cases in our House of Representatives, in the English cases under the Ballot Act of 1872, the material provisions of which are substantially like our own, in the Scotch and Canadian cases and all others which have come to my notice, it seems to be assumed that the requirement of a mark of some sort, sufficient to indicate the voter's choice, is a peremptory requirement, though there is considerable liberality of construction as to the position and character of the mark. An argument to the contrary may perhaps be drawn from section 26, which contains the only express prohibitions in the act against counting ballots, among which it is provided that "if a voter marks more names than there are persons to be elected to an office, or if for any reason it is impossible to determine the voter's choice for any office to be filled, his ballot shall not be counted for such office." It might be said that this makes the possibility of determining the voter's choice, by any means, a test of the validity of the vote; but this construction would open the door to many irregularities which the act seems carefully designed and intended to prevent and to forbid; and under an act of this general character it does not necessarily follow, and it does not seem a reasonable construction, that every vote shall be counted if it is possible by any method to determine the voter's choice, for the reason alone that the statute forbids a vote to be counted if it is impossible to determine the voter's choice; especially as there are many other cases to which this language may be applied consistently with the strict observance of the requirement to mark the ballot. And the argument from section 26 appears to me to be met by the provision of section 23 that even when a voter inserts the name of a candidate not upon the ballot, thereby, as it would seem, indicating unmistakably his choice for that office, the X mark is still to be made opposite the name so inserted. From this it is clear that the act does not make or intend to make the possibility of determining the voter's choice the sole or sufficient test of the validity of the vote. It appears to me a more reasonable construction, keeping in view the general intent of the act, to hold that this provision was intended to mean only that the vote is not to be counted if it is impossible to determine the voter's choice by the means and in accordance with the methods prescribed by the act.

Fourth. At a special election for representative to the General Court, where the official ballot bears only one name and some

ballots are cast bearing such name and none other, and there is no X mark in the proper place, but X marks are made in various other places on the face of the ballot, can such ballots so marked be counted for such candidate? Can they be counted if upon the back or outside of the ballot?

Answer. At a special election for representative to the General Court, where the official ballot bears only one name and some ballots are cast bearing such name and none other, and there is no X mark in the proper place, but X marks are made in various other places on the face of the ballot, such ballots so marked can be counted for such candidate, for the reasons above stated in answer to the second question; as in such a case the person whose name alone is on the ballot must be taken to be the voter's choice, irrespective of any mark. I understand this to cover also the second branch of the fourth question. But of a mark on the back or outside of a ballot it is sufficient to say that such mark is not a mark upon the ballot in the sense of the act, nor is it easy to see how such a mark can possibly determine the voter's choice.

Fifth. At a special election for representative to the General Court, where the official ballot bears only one name, and the printed name of another candidate is pasted, not in the space at the end of the lists of candidates, but in the space where the name of the regularly nominated candidate is printed on the official ballot, but not covering such name, and the X mark is placed in the space to the right of both names, can such ballots be counted for either candidate, and if so, for which candidate?

Answer. At a special election for representative to the General Court, where the official ballot bears only one name, and the printed name of another candidate is pasted, not in the space at the end of the list of candidates, but in the space where the name of the regularly nominated candidate is printed on the official ballot, but not covering such name, and the X mark is placed in the space to the right of both names, such ballots can be counted for either candidate, according to the voter's choice, if it is possible to determine his choice; and it is a settled rule of election law that the writing or otherwise inserting or affixing a name to or upon a ballot is competent evidence to show that the voter intended to vote for the person whose name is so inserted or affixed.

Sixth. At a special election for representative to the General Court, where the official ballot bears only one name, and the printed name of another candidate is pasted, not in the space at the end of the list of candidates, but over the name of the

regularly nominated candidate, with the X mark in the proper space, can such ballot be counted for the candidate whose name is thus affixed to such ballot?

Answer. At a special election for representative to the General Court, where the official ballot bears only one name, and the printed name of another candidate is pasted, not in the space at the end of the list of candidates, but over the name of the regularly nominated candidate, with the X mark in the proper space, such ballot can be counted for the candidate whose name is thus affixed to such ballot, under the circumstances, and for the reasons above stated in the answers to the first and fifth questions.

Seventh. At a special election for representative to the General Court, where the official ballot bore only the name of one candidate, and the printed name of another candidate is pasted, not in the space at the end of the list of candidates, but in the space wherein the name of the regularly nominated candidate appears, and such name of such regularly nominated candidate has been thereby partially obliterated but the X mark is in the proper space, can such ballot be counted for either candidate, and if so, for which of the candidates?

Answer. At a special election for representative to the General Court, where the official ballot bore only the name of one candidate, and the printed name of another candidate is pasted, not in the space at the end of the list of candidates, but in the space wherein the name of the regularly nominated candidate appears, and such name of such regularly nominated candidate has been thereby partially obliterated, but the X mark is in the proper space, such ballot can be counted for the candidate of the voter's choice, if that can be determined, under the circumstances and for the reasons last above stated.

Eighth. Is the provision of law with reference to the marking of the ballot by the voter mandatory, and the provision as to "insertion" or "filling in" of the name of any candidate whose name is not upon the official ballot for whom the voter wishes to cast his ballot in the blank space at the end of the list of candidates mandatory?

Answer. The provision of law with reference to the marking of the ballot by the voter is so far mandatory as to require some mark upon the face of the ballot sufficient to make it possible to determine the voter's choice of the several candidates for the office in question. This follows from the answer to the third question. The provision as to "insertion" or "filling in" of the name of any candidate whose name is not upon the official ballot

for whom the voter wishes to cast his ballot, in the blank space at the end of the list of candidates, is not mandatory. The blank space is provided for the convenience of the voter and there is no express requirement of the act, and in my opinion there is none to be derived from it by construction, making the use of the blank space compulsory in such a case.

Ninth. Can the House of Representatives or its election committee determine the evident intent of the voter from an inspection of the ballot where the strict letter of the law as to affixing or filling in the name or marking the ballot has not been complied with, or must the House of Representatives and its election committee be governed by the express terms of the law?

Answer. The House of Representatives or its election committee, subject to the approval of the House, has power to determine the evident intent of the voter from an inspection of the ballot where the strict letter of the law as to affixing or filling in the name or marking the ballot has not been complied with; as by the Constitution, chapter 1, section 3, article 10, the House of Representatives "shall be the judge of the returns, elections and qualifications of its own members;" which provision is held to give the House absolute power over the subject. But it may be proper to add that the House of Representatives of Massachusetts has been accustomed in such cases to follow the rules of law.

Tenth. Can the House of Representatives or its election committee count, for any candidate, ballots found in the ballot-box and marked "Cancelled," even though it appears from the marks upon the said ballots that they have been through the official registering ballot box?

Answer. The House of Representatives or its election committee, subject to the approval of the House, in the exercise of its constitutional power can count ballots found in the ballot box and marked "Cancelled," when it appears from the marks upon the ballots that they have been through the official registering ballot-box. But if the question is intended to be whether such ballots can lawfully be counted without resort to the arbitrary powers of the House, under the Constitution, it calls for further answer. I assume that the question refers only to ballots which would be entitled to be counted except for the mark "Cancelled." There is no express prohibition in the act against counting a ballot marked "Cancelled," but this mark indicates some irregularity about the ballot which should make it a subject of further inquiry. It is a settled rule of election law that mistake or fraud of the election officers shall not invalidate a vote lawfully and regularly

cast, and this is a salutary rule, in the interest of the public no less than of the voter. As it is difficult to suppose that such a mark, "Cancelled," would be put upon the ballot by the voter himself, and as the reasonable inference, therefore, is that if the ballot was regularly cast the mark was placed upon it by the mistake or fraud of some election officer, in which case it is entitled to be counted, the case calls for further inquiry into the regularity of the ballot and the circumstances under which the mark of cancellation was placed upon it.

A. E. PILLSBURY, *Attorney General*.

HOUSE—1892.

Committee on Elections.—Messrs. SAMUEL L. SAWYER of Danvers, *Chairman*; FRED N. WIER of Lowell, N. EMERY WHITCOMB of Boxborough, DAVID B. BATTLES of Brockton, J. BRADFORD SARGENT of Leicester, JOHN F. SUNDBERG of Boston, and JOSEPH J. CASEY of Boston.

[No cases.]

HOUSE—1893.

Committee on Elections.—Messrs. THOMAS RUSSELL of Boston, *Chairman*; JEREMIAH J. CROWLEY of Boston, JAMES J. MYERS of Cambridge, WILLIAM H. I. HAYES of Lowell, CHARLES E. WAKEFIELD of Amherst, SAMUEL CROOKS* of Hopkinton, and FREDERICK W. WHITCOMB of Holbrook.

JOHN HAIGH v. FRANK McANALLY.

House Document, No. 559. Feb. 13, 1893. Report by THOMAS RUSSELL, *Chairman*.

Recount of Votes by Aldermen, when invalid. Where, upon petition to the aldermen for a recount of votes, the larger number of ballots were recounted by four persons (not aldermen), two representing each candidate, at a time and in a room where other recounts were being made,—and no aldermen took any part in, or supervision over, such recount or tabulation; and where there was evidence that marks upon certain ballots were, at the recount, counted as votes, which were not in fact votes, the recount is invalid.

Recount of Votes granted. Where the recount petitioned for to the aldermen is invalid, and the evidence tends to show that at such recount marks upon certain ballots were improperly counted as votes, the House will recount the votes.

CHARLES U. BELL *for petitioner*.

The Committee on Elections, to whom was referred the petition of John Haigh of Lawrence that he may be given a certificate of election as representative from the fifth Essex representative district, having heard the parties, present the following report:—

The fifth Essex district consists of wards four, five and six of the city of Lawrence, and is entitled to two representatives.

The certificate made out by the mayor and aldermen of the city of Lawrence, in accordance with section 153 of chapter 423 of the Acts of 1890, certified that in said fifth Essex district James H.

* Died Feb. 6, 1893.

Derbyshire of Lawrence was elected representative, and that John Haigh (petitioner) and Frank McAnally each received the same number of votes, to wit, sixteen hundred and fifty-nine (1,659.)

The committee gave a hearing to the parties, at which the petitioner appeared by counsel, and Mr. McAnally appeared in his own behalf.

From the records of the city of Lawrence it appeared that by the original returns of the ward officers John Haigh had sixteen hundred and sixty-three (1,663) votes and Frank McAnally sixteen hundred and fifty-two (1,652) votes for representative, and that a recount of the votes cast in that district was made by the mayor and aldermen of the city of Lawrence, and in consequence of that recount the records were amended so that the result of the election was declared to be that John Haigh and Frank McAnally each had the same number of votes, to wit, sixteen hundred and fifty-nine (1,659) each.

Several witnesses for the petitioner appeared before the committee, and their testimony, which was uncontroverted, showed that the recount of the votes for representative in this district was made in a room where other recounts were being made by the mayor and aldermen, and that some members of the board of aldermen were present in the room during the whole of this recount; that the recount for representative was made on three tables, and that at one of these tables at which the larger number of the ballots were counted, the recount was, by the tacit agreement of the candidates or their representatives present, made by four persons, two representing each candidate, counting the ballots and conducting the whole recount made at that table; and there was no alderman present or taking any part whatsoever in the recount at said table from its beginning to its end, and that the recount was made and the figures there were made up and tabulated without any supervision whatsoever on the part of any member of the board of aldermen.

There was further evidence given tending to show that in the recount certain marks upon certain ballots were treated as marks made by the voter that bore in themselves evidence sufficient to show that they were not so made and should not have been so treated.

The committee on this evidence were of the opinion that the recount purporting to have been made by the mayor and aldermen was not made by them according to the provisions of section 104 of chapter 423 of the Acts of 1890, and that the consent of the candidates to the conduct of the recount, although it might stop them from setting up such conduct as invalidating the recount, yet was

not sufficient to warrant the board of aldermen in disregarding the requirements of the statute, and that the recount was invalid ; that, while the presence and consent of the candidates might waive any informality in the manner of conducting the recount, such consent could not substitute for the recount provided for by statute to be made by the mayor and aldermen another recount made by other parties.

The committee were therefore of the opinion that the circumstances were such as to call for a recount of the votes by the committee, and a recount was accordingly made by the committee with the result that the petitioner, John Haigh, was found to have polled sixteen hundred and sixty-seven (1,667) votes and Frank McAnally sixteen hundred and fifty-eight (1,658) votes.

The committee accordingly report the accompanying resolution.

[The resolution declared that the petitioner was duly elected, and that he is entitled to a seat in the House.]

[The report of the committee was accepted, and the resolution adopted. The petitioner qualified and took his seat in the House.]

SUPREME JUDICIAL COURT.

JAMES N. LARNED *v.* ALBERT H. WHEELER ET AL.

(REPORTED IN 140 MASS. REP. 390.)

Worcester, Sept. 29, 1885—Jan. 5, 1886. Present, MORTON, C. J.,
DEVENS, WILLIAM ALLEN and HOLMES, JJ.

Action against Selectmen. An action can be maintained against the selectmen of a town by a person whose name is wrongfully erased by them from the register of voters required to be kept by Public Statutes, chapter 6, section 13, if at a meeting held for the purpose of registration he appeared before the selectmen and furnished them with proper and sufficient evidence of his qualifications; and proof is unnecessary that in causing his name to be erased the selectmen acted wilfully and maliciously.

Same. In such action it is not material whether the plaintiff actually tendered his ballot at the election, as it could not have been received, his name not being upon the list, nor whether the tax collector had or had not returned the plaintiff's name as having paid his tax, the injury done to the plaintiff being, not an omission or neglect to register his name, but an erasure of the name.

Same. Pleading. A declaration alleged that an election was to be held on Nov. 6, 1883; that the plaintiff's name was on the register of voters and he had a right to vote at such election; that on November 3 the defendants, the selectmen of the town, although they had sufficient evidence furnished them of his qualifications as a voter, wrongfully removed his name from the list, by which he lost the privilege of voting. *Held* that, although the declaration also adds that the defendants wrongfully refused to receive his ballot (on which part of the declaration the plaintiff could not rely, as he did not tender a ballot), the declaration set forth a good cause of action for the erasure of plaintiff's name from the register of voters.

Tort against two of the three persons constituting the board of selectmen of the town of Southbridge for the year 1883. The declaration alleged that for three years prior to Nov. 6, 1883, the plaintiff had resided continuously in the town of Southbridge, and had not changed his residence; that he was entitled to vote at the election for State, county and other officers held on said day; that on Nov. 1, 1883, his name was on the register of voters and upon the list of voters; that the plaintiff appeared before the defendants, as selectmen of Southbridge, at a meeting of the board of selectmen held on Nov. 3, 1883, and furnished it with evidence of his qualifications as a voter, and requested that his name should not be erased from said register and lists of voters, and also appeared at the polls at said election and, offering his ballot, demanded the right and privilege of voting; and that the defendants knowingly and wrongfully caused his name to be erased from said register and lists of voters, and wrongfully refused the ballot so tendered by the plaintiff and

deprived him of the right and privilege of voting. The answer contained a general denial, and averred that the name of the plaintiff was not borne upon any list returned to the defendants by the collector of taxes for said town as of a person who had paid to him any State or county tax since the last preceding return of said collector. Trial in the superior court, before Aldrich, J., who allowed a bill of exceptions, in substance as follows :—

The plaintiff offered evidence of his qualifications as a voter at the time set out in his declaration, and to show that the defendants were members of the board of selectmen of Southbridge at the time alleged. He also offered evidence, which was not controverted, that on Nov. 1, 1883, his name was recorded upon the record of persons entitled to vote in said town, known as the register of voters, kept by the selectmen, as required by law, and that he had voted at previous elections in said town, and that he had a legal right to do so by reason of residence and taxation; that prior to Nov. 3, 1883, he received from one of these defendants notice to appear before the board to show cause why his name should not be erased from said register; that he appeared before the board, before the close of registration, at a meeting of the board for revising and correcting the lists of voters, and answered such questions as were put to him by the board, and made such statements as he chose to make to them.

The evidence was conflicting as to what took place before the board, and as to the time of meeting.

The plaintiff's evidence tended to show that he went before the board on Friday evening, about eight o'clock, and Wheeler asked him if his wife had gone to Binghamton, N. Y.; to which he replied that she had gone there temporarily, and might be back at any time, and might not be back at all; that she had taken such household goods as she wanted, and he had sold the rest; that he had been to the tax collector to pay his tax, and he could not find that any had been assessed to him; that he had paid a tax the year before, and had his tax bill with him; that his wife was living in a house belonging to him; that he did not intend to go there himself to live, but intended to stay in Southbridge; and that his business was there, and he intended to continue to make it his home there.

The defendants offered evidence tending to show that the plaintiff appeared before the board on the Saturday afternoon before election, and, in answer to questions put him and otherwise, stated that he had moved his family to Binghamton, N. Y., in April, 1883; that they were to remain there permanently; that there had been no separation or divorce; that he had sent

part of his household goods and had sold the rest; that he was not assessed in Southbridge that year, but had been the year before; and that he claimed a home with his wife, but that he claimed the right to vote in Southbridge. At the close of this interview the plaintiff was informed that the matter under consideration would be determined later.

It was also in evidence that at a later hour, and before ten o'clock in the afternoon of the Saturday preceding the election, representations were made, by a person other than the plaintiff, as to the law of domicile applicable to the plaintiff's case and in the interest of the plaintiff's right to registration, and thereupon, a vote being had by the board, the defendants voted that he had lost his domicile in Southbridge, and the third member of the board, stating that he was not willing to deprive the plaintiff of the right to vote, voted that he had not; and that the third member of the board, acting as clerk, having kept on a separate paper a list of the corrections to be made upon the register by the action of the board in accordance with said vote, afterwards, and without further consultation with, and without the actual knowledge of, the defendants, and before election day, erased the plaintiff's name from the register of voters, and also from the check-list to be used at the election then next to be had.

The plaintiff offered evidence tending to show that on election day he went to the polling place to vote, and selected his ballot; that he found the defendant Wheeler with the voting list, who said to him, "Your name is stricken off the list," and in reply to his inquiry, "Why?" said to him, "Because your wife went away, and you have not been assessed this year;" that he demanded his right to vote, and Wheeler said to him, "You cannot vote;" that he declared to him that he had complied with all the requirements of law, and had a right to vote; that he did not know which one of the three selectmen had charge of the ballot-box and was receiving ballots, and that he did not offer his ballot to any one at the ballot-box.

The defendants offered evidence tending to show that on election day the defendants did not have charge of the check-list; that Paige, the third member of the Board, had charge of the ballot-box, and the defendant Wheeler was acting as moderator of the meeting; that the ballot-box was upon a table, upon a platform, and that voters passed up on to the platform to the check-list, and, their names being found and checked, passed on to the ballot-box and deposited their ballots; that the plaintiff did not go on to the platform or by the check-list, or offer his ballot to any of the Board, or attempt to do either; that stand-

ing upon the floor of the hall he was informed by Wheeler, who looked at the register of voters, and said that his name was not upon the check-list, and in answer to the question, "Why?" was informed by Wheeler that it was because he had stated to the selectmen that he claimed a home with his wife; that he thereupon said he had as good a right to vote as Wheeler had, and, after a suggestion by a bystander to demand the right to vote, he said, "I do demand the right;" that the plaintiff addressed Wheeler only, and neither of the other selectmen was appealed to or took any part in the conversation.

It was conceded at the trial that the plaintiff was domiciled in Southbridge in the year 1882, and was at that time a legal voter; and that the only ground upon which it was contended by the defendants that he had lost his right to vote in that town in 1883 was by a change in his domicile from Southbridge to Binghamton.

The defendants asked the judge to instruct the jury as follows: "1. The action cannot be maintained against either of the defendants, unless the plaintiff actually tendered his ballot, and it was refused by the defendants. 2. It cannot be maintained against both of the defendants, unless he actually tendered it to both of them, and they refused to receive it. 3. It cannot be maintained on the ground that the defendants erased his name from the list. 4. It cannot be maintained against either of the defendants, unless he offered them proof of his qualifications, before the close of registration, that was reasonably sufficient to satisfy men of fair and impartial minds, and that ought to have induced them in this particular case to put his name upon the register for the election in November then next ensuing. 5. It cannot be maintained, unless the evidence of his qualifications was reasonably satisfactory, and not such as leaves the question in doubt. 6. A mere declaration that he claimed the right to vote, unaccompanied with an actual tender of his ballot, is not sufficient in law to constitute a tender of his vote that will support this action. 7. The action cannot be maintained against either of the defendants unless they had omitted his name from the voting lists after it had been returned to them by the collector of the town of Southbridge as that of a person who had paid a tax since the last return of the collector."

The judge refused to instruct the jury in the language of the foregoing requests, but instructed them as follows: "The only cause of action set forth in the plaintiff's declaration upon which he can recover, if he can recover at all, is for erasing his name

from the register of voters, and not for refusing his vote at the polls on the day of the election. The action can be maintained if, upon all the evidence in the case, the jury are satisfied that the plaintiff appeared at a meeting of the selectmen, held for receiving evidence of the qualifications of voters and correcting the lists of voters, and furnished them with satisfactory evidence of his qualifications as a voter. The jury must find that the evidence furnished by the plaintiff to the selectmen was sufficient to show that he had not changed his domicile, and that the defendants caused his name to be erased from the register of voters. It will not be sufficient to enable the plaintiff to maintain his action, to produce such evidence to the jury upon this trial, without also showing that he furnished the same to the selectmen at the time and place before stated, when the selectmen met to revise and correct the list of voters. The plaintiff can have but one domicile at the same time, and his domicile in Southbridge will continue until he acquires or gains one elsewhere. To effect a change of domicile, the intent to change must be accompanied with an act of change, and the jury are to say whether there is evidence in the case to show a change of domicile. The defendants are liable, if the plaintiff furnished them sufficient proof of his qualifications as a voter, as aforesaid, without proving that they wilfully and maliciously caused his name to be erased."

The jury returned a verdict for the plaintiff, in the sum of \$400; and the defendants alleged exceptions.

J. Hopkins (J. M. Cochran with him) for the defendants.

F. P. Goulding and A. J. Bartholomew for the plaintiff.

DEVENS, J. It is the contention of the defendants that no action can be maintained against them for erasing the plaintiff's name from the register of voters, he having appeared before them at a meeting held for receiving evidence of the qualifications of voters, and furnish them with satisfactory evidence of such qualifications.

The law makes provision for a register of voters, and also for alphabetical lists. The latter are used at an election, and contain simply the names and residences of voters, while the former embraces a larger number of particulars. Pub. Sts., c. 6, §§ 16, 18, 20. The provision that "selectmen of towns shall make and keep records of all persons entitled to vote therein at any election for town, county, State or national officers, which shall be known as a register of voters," contemplates a permanent record, to be revised from time to time, as before any annual election, or upon affidavit that persons named are illegally registered. Pub. Sts., c. 6, §§ 13, 15, 22. As it exists, it determines the right of per-

sons to vote, as from it the alphabetical lists of voters are made. While the selectmen are to meet on the Saturday before the meeting for the choice of town, county or State officers, to receive evidence of the qualifications of persons claiming a right to vote, and to correct the list of voters, the first step in the latter duty is to correct the registration, which ceases at ten o'clock in the afternoon of that day. § 23. As no person can be added to the lists of voters until his name has been recorded in the register, according to the express words of the statute, so it would seem clear that it cannot be thence erased until it has been struck from the register. § 27.

The argument is not sound, that there must be a new register at each election, and that, as it is so prepared for each, it cannot be said that any name is erased therefrom merely because it is not there found at ten o'clock on the Saturday afternoon previous to an election, when registration ceases, even if it had been on previous registers. While the register is subject to various modifications, such as those heretofore alluded to, it does not lose its substantial identity. The provision by which at any time, except that it must not be within seven days of an election, a legal voter may apply to the proper authorities, setting forth that a person named is illegally registered, sufficiently shows that the register is treated as always existing.

The rights of the voter in approaching the polls are indeed dependent upon the voting list, and the words "and no person shall vote at an election whose name has not been previously placed on such list," refer to the alphabetical list furnished to the officers conducting the election. Pub. Sts., c. 7, § 9. But the voting list depends on the registration which has been theretofore made. When, therefore, the defendants struck the plaintiff's name from the register, they effectually deprived him of his right to vote at any subsequent election until it was restored thereto. It was the duty of those conducting the election to refuse his vote. The erasure of his name was the injury which he sustained, and, if this was wrongful, he might maintain an action therefor, if at a meeting held for the purpose of registration he had appeared before the selectmen and furnished them with proper and sufficient evidence of his qualifications. *Lombard v. Oliver*, 3 Allen, 1, and 7 Allen, 155. *Harris v. Whitcomb*, 4 Gray, 433.

The fact that, if he had formally tendered his vote, which had been refused, he might also have maintained an action for such refusal by reason of having furnished to the selectment sufficient evidence of his qualifications as a voter before the close of registration, and requested that his name be put upon the list, should

not deprive him of his remedy for the injury done him by the removal of his name from the register. Pub. Sts., c. 7, § 10, *Blanchard v. Stearns*, 5 Met. 298, 301. Whether he appeared before the selectmen before the close of registration for the purpose of having his name put on the register, or, it being there, to prevent it being taken off, cannot be important. The removal of his name was, if wrongful, a direct injury, which deprived him of his right to vote. For this an action may be maintained, although there are also highly penal provisions in the statute, intended to provide for wilful violations of the rights of a voter, under which the plaintiff does not seek to recover.

It was not material whether the plaintiff actually tendered his ballot, as it could not have been received, his name not being upon the list, nor whether the tax collector had or had not returned the plaintiff's name as having paid his tax, the injury done the plaintiff not being an omission or neglect of the defendants to register his name, but an erasure by them of the name. Pub. Sts., c. 6, § 29.

The defendants urge that the declaration does not set forth a cause of action, because it does not show that the erasure was made from the register prepared for the election of Nov. 6, 1883. The declaration was, that an election was to be held on Nov. 6, 1883; that the plaintiff's name had been, and was, on November 1, on the register of voters; that he had a right to vote at such election; that on November 3, although the defendants had sufficient evidence furnished them of his qualifications, they wrongfully removed his name from the list, by which he lost the privilege of voting. This sets forth a good cause of action, and although it also adds that the defendants wrongfully refused to receive his ballot, on which part of his declaration he was not entitled to rely, as the ballot had not been properly tendered, this could not affect the other cause of action, which was well set forth.

Exceptions overruled.

OPINION OF THE JUSTICES OF THE SENATE AND HOUSE OF REPRESENTATIVES.

[REPORTED IN 142 MASS. 601.]

By Chief Justice MORTON and Associate Justices FIELD, DEVENS,
W. ALLEN, C. ALLEN, HOLMES and GARDNER.

Apportionment of Senators and Representatives must be based on State Census. The Constitution of the Commonwealth does not intend that the apportionment of senators and representatives, which affects the people of the whole State, shall be determined by any enumeration taken by officials of cities or towns, or by the number of voters ascertained in any other mode than that which it provides; but clearly intends that the official enumeration, taken and returned to the office of the Secretary of the Commonwealth, under the authority and by officers of the Commonwealth, shall be the sole guide of the General Court in making the apportionment.

Apportionment of Senators. Proper Boundaries of Wards and Cities. Under the 22d Amendment to the Constitution, providing for the taking of the census and enumeration of the legal voters of each city and town, and requiring in each city a special enumeration of the legal voters residing in each ward, which enumeration shall determine the apportionment of senators for the periods between the taking of the census, — and also providing that in such apportionment the General Court shall divide the Commonwealth into forty senatorial districts of adjacent territory, each district to contain as nearly as may be an equal number of legal voters according to the enumeration aforesaid, provided, however, that no town or ward of a city shall be divided therefor, — the General Court in making such apportionment and division of senatorial districts must be governed by the boundaries of the towns and wards of cities as they existed upon the first day of May in the year in which the census is taken, and not as they exist at the time of such apportionment and division, if in the meantime there has been any change in such boundaries.

Same. Apportionment of Representatives. The 21st Article of Amendment to the Constitution, as it contains similar provisions in regard to the enumeration of the legal voters of each city and town, and the apportionment of representatives in accordance therewith, must receive the same construction as the 22d Article of Amendment, in determining the proper boundaries of towns and wards of cities to be considered in making the apportionment of representatives.

The following order was adopted by the Senate, on May 21, 1886, and on the same day, by the House of Representatives in concurrence, and thereafter transmitted to the Justices of the Supreme Judicial Court, who, on May 27th, 1886, submitted the opinion which is subjoined: —

Whereas, In the year eighteen hundred and sixty-five the Legislature did pass an act entitled “An Act empowering cities to re-establish their wards,” which act has ever since been in force, and divers cities in the Commonwealth have re-established their wards according to the provisions of said act; and

Whereas, Divers cities and towns have been incorporated and organized under and by virtue of certain acts of the Legislature relating thereto ; and

Whereas, The General Court at its present session is required to divide the Commonwealth into senatorial districts, and to provide for the apportionment and division of the Commonwealth into representative districts, and to this end has certain bills, orders and other proceedings now pending before it relating thereto ; and

Whereas, The authority to make such apportionments and divisions, according to the territorial boundaries of towns and cities, and their wards, as now existing and established, or hereafter to be established, under said acts of the Legislature, is brought into question, and the constitutionality thereof disputed ;

Therefore, It is ordered by the General Court, in each branch thereof, that the opinion of the Justices of the Supreme Judicial Court be required upon the following important questions of law : —

First. Does the Constitution in the twenty-second amendment thereof require the Commonwealth to be divided by the General Court into senatorial districts according to the boundaries of towns and cities and the wards thereof, as they existed on the first day of May in the year in which the census of legal voters is taken, that applies to said apportionment and division?

Second. Does the Constitution in the twenty-first amendment thereof require the aldermen of the city of Boston and the county commissioners of the counties other than Suffolk (in case no special commissioners are provided therefor), to divide the assignments of representatives to the several counties apportioned by the Legislature, according to the boundaries of the towns and cities and their wards, as they existed on the first day of May in the year in which the census of the legal voters is taken, that applies to the said apportionment and division?

Third. Under the terms of the twenty-second amendment to the Constitution, can the General Court in making the apportionment of senators and in the division of the Commonwealth into districts therefor, recognize and take as a basis for the same, the towns incorporated or organized after the first day of May of the year in which the census of legal voters is taken, that applies to such apportionment or division, or the wards in cities which have been established under the general law, being chapter seven of the acts of the year eighteen hundred and sixty-five, or under any other law, special or general, relating thereto, after the first day of May of the year in which the census of legal voters is taken, that applies to such apportionment or division?

Fourth. Under the terms of the twenty-first amendment to the Constitution, can the aldermen of the city of Boston and the county commissioners of the counties other than Suffolk (in case no special commissioners are provided therefor), in making the division into representative districts, recognize or take as a basis therefor the towns incorporated or organized after the first day of May of the year in which the census of legal voters is taken, that applies to said apportionment or division, or the wards in cities which have been established under the general law, being chapter seven of the acts of the year eighteen hundred and sixty-five, or under any other law, special or general, relating thereto, after the first day of May of the year in which the census of voters is taken, that applies to said apportionment or division?

The JUSTICES OF THE SUPREME JUDICIAL COURT, having considered the questions proposed in the joint order of the twenty-first of May present, respectfully submit the following opinion:—

The twenty-second article of amendment of the Constitution provides that “a census of the legal voters of each city and town, on the first day of May, shall be taken and returned into the office of the Secretary of the Commonwealth, on or before the last day of June, in the year one thousand eight hundred and fifty-seven; and a census of the inhabitants of each city and town, in the year one thousand eight hundred and sixty-five and of every tenth year thereafter. In the census aforesaid, a special enumeration shall be made of the legal voters, and in each city said enumeration shall specify the number of such legal voters aforesaid residing in each ward of such city.

“The enumeration aforesaid shall determine the apportionment of senators for the periods between the taking of the census. The Senate shall consist of forty members. The General Court shall at its first session after each next preceding special enumeration, divide the Commonwealth into forty districts of adjacent territory, each district to contain, as nearly as may be, an equal number of legal voters according to the enumeration aforesaid; provided, however, that no town or ward of a city shall be divided therefor.”

The first and third questions proposed to us are whether in dividing the Commonwealth into senatorial districts the General Court must be governed by the boundaries of the towns and wards as they existed on the first day of May of the year in which the census is taken, or whether they can make such division according to the boundaries of towns and wards as they exist at the time of

the division, if there has been any change in such boundaries since the first day of the next preceding May.

We have no doubt that the amendment imposes upon the General Court in each tenth year, the duty of providing by suitable legislation that a census and enumeration of legal voters shall be taken, and returned into the office of the Secretary of the Commonwealth. The great object of the amendment was to establish the Senate upon the basis of legal voters, and to provide for a method of ascertaining the number of legal voters so as to furnish a guide to the General Court in dividing the State into senatorial districts. The fundamental idea is that an enumeration shall be made under the authority and direction of the Commonwealth, and that this enumeration shall guide the General Court in making the division. Such enumeration must "determine the apportionment of senators," and the division must be made "according to the enumeration aforesaid." The General Court is to be governed entirely by this enumeration, and is not at liberty to look to any other source for information as to the number of legal voters in any territory which it proposes to erect into a senatorial district. It must act upon the enumeration returned to the office of the Secretary of the Commonwealth, and by him laid before the legislature. The provision that the enumeration shall specify the number of legal voters in each ward of a city, necessarily refers to each ward as it existed on the first day of May, and the accompanying provision that "no town or ward of a city shall be divided," we think, by its fair construction, refers to such town or ward; that is, the town or ward as it existed on the first day of May of the year in which the census is taken. The intention of the framers of the amendment seems to have been to establish such town or ward as a unit of division. The scheme was to ascertain the number of voters in each town and ward as found on the first day of May; and then, as soon as could be thereafter, to divide the State into senatorial districts according to that enumeration. It regards the apportionment as a continuing act or process, beginning with the enumeration of voters in the several towns and wards, and ending with the assignment of the same towns and wards to senatorial districts. There seems to be no reason for requiring the enumeration by wards, as they exist on the first day of May, unless such enumeration is to regulate the division into districts. If a town is divided or the wards of a city are changed after the first day of the preceding May, and before the time when the division is made, the Constitution does not furnish the General Court with the means of ascertaining the number of voters who resided in the new town or ward on the first

day of May. If the division is to be made according to the boundaries of the new towns or wards, how is the General Court to ascertain the number of legal voters in such new towns or wards? The official returns, which are, by the Constitution, the only basis upon which it can act, do not show it. It might, perhaps, by other means, more or less to be relied on, ascertain approximately the number; but this would be a violation of the provision that the official enumeration shall determine the apportionment. The Constitution does not intend that the apportionment of senators, which affects the people of the whole State, shall be determined by any enumeration taken by officials of cities or towns, or by the number of voters ascertained in any other mode than that which it provides. On the contrary, as we have before said, it does clearly intend that the official enumeration, taken and returned to the office of the Secretary of the Commonwealth under the authority of and by officers of the Commonwealth, shall be the sole guide of the General Court in making the apportionment.

We are therefore of opinion that by the sound construction of the twenty-second article of amendment, the General Court is required to divide the State into senatorial districts according to the boundaries of the towns and wards as they existed on the first day of May last. If the question were a new one we should have adopted this construction without any hesitation. We have considered the subject with more care because the fact can not be overlooked that in apportioning the senators in the years eighteen hundred and sixty-six and eighteen hundred and seventy-six, the General Court proceeded upon a different construction of the twenty-second amendment. It is true that when a provision of the Constitution is obscure and doubtful, the construction adopted by the legislature or any other department of government is entitled to great weight. But the Constitution is supreme and no number of legislative acts will justify a construction against its plain meaning.

The provision we are considering is intended to be permanent and we think that its meaning is reasonably clear, and that the construction implied in acts of previous legislatures ought not to control our opinion. Nor do we overlook the fact that a division according to the old wards in the city of Boston will, so long as the present statutes remain in force, lead to the inconvenience that there will be one system of wards for the purpose of electing councillors, senators and representatives, and a different system of wards for all other purposes. But this is an inconvenience which is not an incident of or created by the constitutional provision. It is the result of subsequent legislation and can be cured

by legislation. An inconvenience thus created cannot be of weight in determining the true construction of the constitutional provision.

The twenty-first amendment, so far as the provisions we are considering are concerned, is in substance, and very nearly in language, the same as the twenty-second, and must receive the same construction.

It follows that the first and second questions proposed to us must be answered in the affirmative, and the third and fourth questions in the negative.

Boston, May 27, 1886.

COMMONWEALTH v. GEORGE E. HOWE.

REPORTED IN 144 MASS. 144.

Middlesex, Nov. 22, 1886 — Feb. 26, 1887. Present, MORTON, C. J., FIELD
DEVENS, WILLIAM ALLEN, CHARLES ALLEN, JJ.

Fraudulent Voting on Question of Licensing Sale of Liquors. The Public Statutes, chapter 7, section 57,* providing that "whoever . . . at any national, State or municipal election . . . knowingly gives more than one ballot at one time of balloting at such election, shall be punished," does not apply to ballots given, at a municipal election of a city, upon the question of granting licenses for the sale of intoxicating liquors.

Complaint to the police court of Lowell, alleging that the defendant, on Dec. 8, 1885, at Lowell, at the regular annual municipal election of said city, held on said day, when a vote was taken upon the following question, "Shall licenses be granted for the sale of intoxicating liquors in this city?" the vote being then and there by separate ballot, "did upon the question aforesaid, to wit, 'Shall licenses be granted for the sale of intoxicating liquors in this city?' wilfully, fraudulently, knowingly, and designedly give in more than one ballot at one time of balloting at the vote and election aforesaid, against the peace of said Commonwealth, and contrary to the form of the statute in such case made and provided."

In the superior court, on appeal, before the jury were empanelled, the defendant filed a motion, which was also filed and overruled in the police court, to quash the complaint, for the following reason among others: "That the said complaint sets forth no offence against any law or laws of this Commonwealth." Staples, J., overruled the motion. The jury returned a verdict of guilty; and the defendant alleged exceptions.

W. F. Courtney for the defendant.

H. N. Shepard, Assistant Attorney-General, for the Commonwealth.

W. ALLEN, J. The Public Statutes, chapter 7, section 57, provide that "whoever . . . at any national, State or municipal election . . . knowingly gives more than one ballot at one time of balloting at such election, shall be punished," etc. The Public Statutes, chapter 100, section 5, provide that "in a city which at its annual

* Now section 133 of chapter 423 of the Acts of 1890.

municipal election, or in a town which at its annual meeting, votes to authorize the granting of licenses for the sale of intoxicating liquors," etc., "the aldermen and selectmen respectively shall insert in the warrant for the annual municipal election or town meeting an article providing for a vote upon the question" of granting such licenses; that the vote shall be by separate ballot, and in taking it the check-list shall be used. The defendant was convicted on a complaint charging him with giving more than one ballot on the question of licensing the sale of intoxicating liquors at a municipal election in the city of Lowell. The complaint cannot be sustained, unless the statute first above cited includes such a ballot.

In the latter statute, the words "annual municipal election" evidently mean the annual meeting for the election of municipal officers. The law provides for such a meeting in cities, and the statute intended to provide for a vote to be taken at that meeting. The annual meeting being established by law for the election of officers, a vote required to be taken at the meeting, though not in the election of officers, was described as a vote at the annual election. If the same meaning is to be given to the word "election" in the former statute, the act charged in the complaint comes within its purview; but if it intends a ballot given in an election of national, State or municipal officers, it does not include the act charged in the complaint. The natural import of the expression "balloting at a national, State or municipal election," is balloting in the election of such officers, and it suggests only balloting for them. This apparent meaning of the statute might have been controlled by the more obvious different meaning of the word "election" in the other statute, if the two statutes had been originally enacted at the same time, and if they related only to cities. But the consideration of the history and provisions of both statutes confirms the conclusion that the former statute intends only ballots cast for national, State or municipal officers.

The statute of 1813, chapter 68, section 2, provides that, "If any person, at any meeting for the choice of town officers, shall knowingly give in more than one vote or list, for an officer or list of officers then voted for at any such meeting, he shall forfeit," etc. The Revised Statutes, chapter 4, section 7, in the chapter "Of the manner of conducting elections," provides that, "If any voter shall knowingly give in more than one ballot, at any one time of balloting, at any election, he shall forfeit," etc. This is re-enacted in the General Statutes, chapter 7, section 29, in the chapter under the same title. The statute of 1874, chapter 356, repealed this statute, and enacted, under the title of "An Act to

punish illegal voting and to secure the purity of elections," that "Whoever, with fraudulent intent, votes or attempts to vote upon any name other than his own at any national, State or municipal election," or whoever knowingly gives more than one ballot at one time of balloting at an election, shall be punished by imprisonment," etc. The statute of 1876, chapter 172, under the same title, re-enacted the statute with increased penalty. This included only ballots given in an election of officers, and was in force when the statute of 1881, chapter 54, first provided for voting in cities and towns upon the question of licensing the sale of intoxicating liquors. When the Public Statutes were enacted, the statute of 1876, chapter 172, was re-enacted in the chapter "Of the manner of conducting elections and returning votes," chapter 7, section 57; and the statute of 1881, chapter 54, was re-enacted in chapter 100, under the title "Of intoxicating liquors."

The natural import of the language of chapter 7, section 57, and the obvious purpose of its original enactment and subsequent re-enactments, indicate that it was limited to ballots cast in the election of officers, and does not include all ballots upon any matter which might be voted upon by ballot at the annual meeting for the election of municipal officers in cities. It is very plain that the statute cannot include ballots cast at town meetings, except in the election of officers. A ballot given at a municipal election cannot, by any license of construction, be made to mean a ballot given at an annual town meeting on the question of pledging the credit of the town, or of uniting it with another town, or of licensing the sale of intoxicating liquors, or upon any matter of town concern which may be voted on by ballot. It is equally clear that the Legislature could not intend, by the words "balloting at such election," in chapter 7, section 57, to include balloting on the question of licensing the sale of intoxicating liquors in cities, and to exclude such balloting in towns. A construction which gives a different meaning to the words when applied to cities from what they have when applied to towns, is equally inadmissible with a construction which includes ballots given at a town meeting upon other matters than elections.

This construction is confirmed by a reference to the statutes regarding voting by cities and towns upon allowing sales of intoxicating liquors therein, when the statute of 1869, chapter 415, prohibiting sales, was in force. The statute of 1870, chapter 389, section 2, authorized sales of ale, porter, strong beer and lager beer. Section 3 was in these words: "The inhabitants of any city or town may, on the first Tuesday of July next, and thereafter on the first Tuesday in May annually, vote that no person shall be allowed

to sell ale, porter, strong beer or lager beer, in which case the sale of such liquors in such city or town is prohibited." The statute of 1871, chapter 334, repealed these sections and substituted other provisions. Section 2 authorized a city or town to vote on the first Tuesday of July then next, and thereafter annually on the first Tuesday of May, that any person might manufacture or sell ale, porter, strong beer or lager beer therein. Section 3 provided that meetings for the purpose should be notified, warned and held in the same manner as meetings for the choice of municipal officers; that the meeting should be kept open at least two hours; that the check-list should be used and the vote should be by ballot. This special meeting was clearly not an "election," within the meaning of that word in the statute, making penal the giving of more than one ballot at any election. The statute of 1871, chapter 334, was repealed by the effect of the statute of 1875, chapter 99, which provided for the granting of licenses for the sale of intoxicating liquors, by the mayor and aldermen of cities, and the selectmen of towns. The statute of 1881, chapter 54, which prohibited the granting of such licenses, except in cities and towns which voted to authorize them, provided for a vote in the manner provided for in the statute of 1871, chapter 334, except that, instead of requiring a special meeting on the first Tuesday of May annually, it provided for voting at the annual municipal election in cities and annual meeting in towns. These words, in our opinion, show an intention to fix the time and occasion when the voting should be had, and not to enact that ballots in cities, upon the question of licensing, should be taken to be ballots given at an election, within the meaning of that word in the statute upon elections.

We think that the contention of the defendant that the ballot intended by the statute, upon which the complaint is framed, is a ballot for national, State or municipal officers, and that the complaint charges no offence under the statute, is sustained.

If the complaint is good as charging a misdemeanor at common law (see *Commonwealth v. Silsbee*, 9 Mass. 417), it was an offence of which the police court of Lowell did not have jurisdiction; and it is unnecessary to consider the objection to the sufficiency of the complaint. *Exceptions sustained.*

PATRICK KINNEEN v. JAMES H. WELLS.

REPORTED IN 144 MASS. 497.

Middlesex, March 2—May 11, 1887. Present, MORTON, C. J., FIELD, DEVENS, WILLIAM ALLEN, CHARLES ALLEN, HOLMES, JJ.

Right of Suffrage Fixed by Constitution. The right of each State to define the qualifications of its voters is complete and perfect, except as controlled by the 15th Article of Amendment to the Constitution of the United States. These qualifications in Massachusetts are fixed by the Constitution of the Commonwealth, and to these provisions of the Constitution all legislation is subordinate. The Legislature cannot add to nor diminish the qualifications of a voter as prescribed by the Constitution.

Same. Power of Legislature over Right of Suffrage. While the Legislature can make any reasonable, uniform and impartial regulation of the mode of exercising the right of suffrage, and ascertaining the qualifications of voters, it cannot add to the prescribed qualifications; nor can it discriminate between different classes of voters, and impose requirements upon one class not imposed upon others.

Same. Section 7 of chapter 345 of the Acts of 1885, providing that "no person hereafter naturalized in any court shall be entitled to be registered as a voter, within thirty days of such naturalization," is in conflict with the Constitution of the Commonwealth and is void, because it adds to the qualifications of voters prescribed by the Constitution, and imposes upon one class of voters, — newly naturalized citizens, — a requirement not imposed upon all voters.

DEVENS, J. The case at bar is an action of tort against the registrars of voters in the city of Cambridge to recover damages for wrongfully refusing, as the plaintiff alleges, to register him as a voter for the State election of 1886. The judge who presided at the trial in the superior court sustained the demurrer to the plaintiff's declaration, and reported the case for the determination of this court.

The case raises but a single question, although one of much importance. The defendants refused to register the plaintiff because he had been naturalized within thirty days previously to his application for registration. They were fully justified in so doing, under the statute of 1885, chapter 345, section 7, if the provisions of this section are constitutional. This section enacts that "no person hereafter naturalized in any court shall be entitled to be registered as a voter within thirty days of such naturalization."

By naturalization, the plaintiff becomes *eo instanti* a citizen of the United States, and therefore a citizen of the State of his residence. By the fourteenth article of the Amendments of the Constitution of the United States, "all persons born or naturalized in the United States, and subject to the jurisdiction thereof,

are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States."

The right or privilege of voting is a right or privilege arising under the Constitution of each State, and not under the Constitution of the United States. The voter is entitled to vote in the election of officers of the United States by reason of the fact that he is a voter in the State in which he resides. He exercises his right because he is entitled to by the laws of the State where he offers to exercise it, and not because he is a citizen of the United States. *United States v. Anthony*, 11 Blatchf. 200. What are the rights of citizens of the United States, as such, and not as citizens of particular States, need not be here considered. They have repeatedly been discussed and defined. *Corfield v. Coryell*, 4 Wash. C. C. 371. *Paul v. Virginia*, 8 Wall. 168. *Ward v. Maryland*, 12 Wall. 418, 430. *Slaughter-house Cases*, 16 Wall. 36.

The qualifications of voters are fixed by State legislation. The requisitions as to ownership of property, citizenship, sex and residence, in connection with the right of voting, vary with the constitutions or laws of the several States. However unwise, unjust or even tyrannical its regulations may be, or seem to be, in this regard, the right of each State to define the qualifications of its voters is complete and perfect, except so far as it is controlled by the fifteenth article of the Amendments of the Constitution of the United States, which provides that "the right of citizens of the United States to vote shall not be denied or abridged by the United States, or by any State, on account of race, color or previous condition of servitude."

The question whether section 7 of the statute of 1885, chapter 345, is constitutional, must be decided by determining whether this legislation is in conformity with the Constitution of this Commonwealth, or whether it adds anything to the qualifications which the voter is thereby required to possess, and thus interferes with the enjoyment of the rights with which this Constitution invests him.

The third article of the Amendments of the Constitution of Massachusetts, adopted in 1821, is as follows: "Every male citizen of twenty-one years of age and upwards, excepting paupers and persons under guardianship, who shall have resided within the Commonwealth one year, and within the town or district in which he may claim a right to vote, six calendar months next preceding any election of governor, lieutenant-governor, senators or representatives, and who shall have paid, by himself, or his parent,

master or guardian, any State or county tax, which shall, within two years next preceding such election, have been assessed upon him, in any town or district of this Commonwealth; and also, every citizen who shall be, by law, exempted from taxation, and who shall be, in all other respects, qualified as above mentioned, shall have a right to vote in such election of governor, lieutenant-governor, senators and representatives; and no other person shall be entitled to vote in such elections."

A reading and writing qualification was established in 1857, by article twenty of the Amendments of the Constitution. But this it will not be necessary to consider in the present discussion.

The qualifications of voters are thus defined with clearness and precision; without the possession of these, the citizen or inhabitant cannot exercise the privilege of voting, and, as whoever possesses them is by the Constitution entitled to this privilege, legislation cannot deprive him of it. By the Constitution, chapter 1, section 1, article 4, full power and authority are given to the General Court "from time to time to make, ordain and establish all manner of wholesome and reasonable orders, laws, statutes and ordinances, directions and instructions, either with penalties or without; so as the same be not repugnant or contrary to this Constitution, as they shall judge to be for the good and welfare of this Commonwealth, and for the government and ordering thereof, and of the subjects of the same, and for the necessary support and defence of the government thereof." To the provisions of the Constitution all legislation is thus made subordinate, and it cannot add to nor diminish the qualifications of a voter which that instrument has prescribed. *Blanchard v. Stearns*, 5 Met. 298, 301. *Williams v. Whiting*, 11 Mass. 424, 433. "This provision of the Constitution (article 3 of the amendments), being irrepealable by any act of ordinary legislation, must be obeyed and carried into effect according to its plain intent and meaning, as far as that can be ascertained." *Opinion of Justices*, 5 Met. 591, 592.

The plaintiff, according to the allegations of his declaration, possessed, when he offered himself for registration, all the qualifications of a voter required by the Constitution. Any legislation by which the exercise of his rights is postponed diminishes them, and must be unconstitutional, unless it can be defended on the ground that it is reasonable and necessary, in order that the rights of the proposed voter may be ascertained and proved, and thus the rights of others (which are to be protected as well as his own) guarded against the danger of illegal voting. The Constitution, while providing for the qualification of voters, contemplates that

equal and reasonable rules will be made by legislation as to the method of exercising the privilege, and also that, somewhere and at some time, under proper regulations, there will be an inquiry whether those offering to vote possess the requisite qualifications. This inquiry involves an investigation of various facts, as those in regard to the proposed voter's age, sex, residence, payment of taxes, etc. It is not an unreasonable provision that all persons entitled as voters shall be registered as such previously to depositing their ballots, and, if the Legislature deems that such an inquiry could not proceed concurrently with the actual voting or election, and both be conducted in a deliberate and orderly manner, it is not unreasonable that it should provide that such an inquiry should terminate before the election actually commences, at a previous time sufficiently long to make proper preparations therefor.

The plaintiff in the case at bar does not contend that the Legislature has not the right to make any reasonable, uniform and impartial regulation of the mode of exercising the right of suffrage, and also of ascertaining the qualifications of voters. He denies that section 7 of the statute under discussion is of this character.

The leading case, not only in this Commonwealth, but in the whole discussion that has taken place in this country in regard to the right of legislatures to provide for judging the qualifications of voters, and for regulating the exercise of their privileges by them as these are prescribed by the constitutions of the States, respectively, is *Capen v. Foster*, 12 Pick. 485. It was there held that the statutes of 1821, chapter 110, and 1822, chapter 104, providing for a registration of voters in Boston, and requiring that, previously to an election, the qualifications of voters should be proved, and their names be placed on an alphabetical list or register, were not to be regarded as prescribing a qualification in addition to those which, by the Constitution, entitled a citizen to vote, but only as reasonable regulations of the mode of exercising the right of voting which it was competent for the Legislature to make. But while it is held to be within the proper limits of legislative power to provide suitable regulations for exercising the right of suffrage in a prompt, orderly and convenient manner, the court, speaking through Chief Justice Shaw, was careful to add: "Such a construction would afford no warrant for such an exercise of legislative power, as, under the pretense and color of regulating, should subvert or injuriously restrain the right itself. . . . It (the Constitution) fixed the qualifications of voters with precision, and left all the rest to be regulated by law. . . . The Constitution, by carefully prescribing the qualifications of voters, necessarily requires that an examination of the claims of persons to vote, on

the ground of possessing these qualifications must at some time be had by those who are to decide on them. . . . If then the Constitution has made no provision in regard to the time, place and manner in which such examination shall be had, and yet such an examination is necessarily incident to the actual enjoyment and exercise of the right of voting, it constitutes one of those subjects, respecting the mode of exercising the right, in relation to which it is competent to the legislature to make suitable and reasonable regulations, not calculated to defeat or impair the right of voting, but rather to facilitate and secure the exercise of that right."

If section 7 of the Statute of 1885, chapter 345, were general in terms, and allowed no person to register as a voter until he had possessed the requisite qualifications for a period of thirty days, it would be difficult to maintain its constitutionality. It will still provide for adding another qualification to those required by the Constitution, as much as if the period of domicile within the town or the Commonwealth, required by the Constitution before voting, were extended to a longer period. *State v. Williams*, 5 Wis. 308. *Quinn v. State*, 35 Ind. 485. The Constitution does not provide that the qualifications it requires shall be possessed by the voter for any period before the election, nor has it ever been held that this was necessary. To add this requirement before one can be registered as a voter, is certainly to increase the qualification. *Kilham v. Ward*, 2 Mass. 236. *Bridge v. Lincoln*, 14 Mass. 367. *Humphrey v. Kingman*, 5 Met. 162, 165.

In reply to an inquiry by the House of Representatives, as to whether one who had been, but had ceased to be, a pauper, must have ceased to be such for any definite period before he could exercise the right of suffrage, it was said by this court: "It is no more required that the voter shall have ceased to be a pauper, or under guardianship, a year or six months before the election, than that he shall have been a citizen, or of age, during a like period. It has never been doubted that minors, having the other requisite qualifications, become qualified to vote immediately upon arriving at full age. And by uniform usage, recognized and approved in an opinion given to the Honorable House last year,* persons otherwise qualified, who have been naturalized at any time before the election, have been deemed entitled to vote. The necessary conclusion appears to us to be, that, by the third article of the amendment to the Constitution of the Commonwealth, the disqualification of pauperism or guardianship, like that of alienage or nonage, is not required to have ceased to exist for any definite period of time, in order to entitle a man actually free from every

* The reference is probably to the opinion given in 1877, and reported in 122 Mass. 594.

such disqualification, and duly qualified in point of residence and of payment of taxes, to exercise the right of suffrage." *Opinion of Justices*, 124 Mass. 597.

Nor, if such a law were general, is it easy to see how it could be defended upon the ground that it was a reasonable regulation for the purpose simply of ascertaining qualifications and determining whether an applicant actually possessed them. Every system of registration of voters contemplates that the registration will be completed, and that the list of voters will be prepared, before voting actually commences. No system would be just that did not extend the time of registration up to a time as near that of actually depositing the votes as would be consistent with the necessary preparation for conducting the election in an orderly manner and with a reasonable scrutiny of the correctness of the list. While cases may be imagined where the right to vote might depend on a somewhat complicated inquiry, ordinarily the facts on which it depends are simple and susceptible of rapid investigation. Because a difficult inquiry is possible, to provide that all citizens proving themselves to possess the requisite qualifications as voters should not be allowed to register as such for thirty days thereafter, and thus be obliged to show in addition that they had possessed them for that length of time, might be held an unreasonable regulation in regard to the exercise of the privilege of suffrage. In many instances the right to vote might itself accrue, as by expiration of time, by payment of taxes, etc., within the thirty days which precede the registration.

But serious as these objections would be to the constitutionality of a general law applicable to all classes of citizens, it is not necessary now to consider them, as the section of the statute in question presents a difficulty even more serious. It undertakes to prevent a single class of citizens, namely, those who are naturalized, possessing all the qualifications established by the Constitution of the Commonwealth, from exercising the right with which the Constitution invests them, for a period of thirty days, by forbidding the registrars of voters to register them during that period. All citizens must stand equal before the law, and the statute, assuming them to be citizens, imposes this prohibition upon them as citizens of a specified class. A statute regulating the exercise of the right of suffrage, or the ascertainment of the qualifications of voters, must not only be reasonable in its character, but uniform and impartial in its application. If it were possible to impose a period of probation upon all qualified citizens before they were entitled to exercise the privilege, it certainly is not possible under the Constitution to select a single class and impose it on this class alone. "A registry act," says Mr. Mo-

Crary, in his work on Elections, section 8, "which should undertake to require a longer residence, prior to the time of voting, than that required by the Constitution, or which should require the payment of taxes not required to be paid by constitutional provision, or which should impose upon a particular class of citizens conditions and requirements not required of all others, would be void."

It was suggested at the argument, that the section of the statute here in question might be upheld as a reasonable regulation to protect the public from possible fraud in obtaining certificates of naturalization, and that the delay of thirty days before naturalized citizens are permitted to register allows this investigation. But the board of registrars is not competent to pass upon the question whether a certificate of naturalization was erroneously granted, nor can such a certificate be thus attacked before them collaterally. The only question upon this part of their inquiry into the qualifications of the applicant is whether he is in fact the person named in the certificate he produces, if such certificate be itself properly authenticated. It is a question of identity solely.

No argument in favor of the constitutionality of the section can be founded upon any peculiarity in the situation of naturalized citizens, which renders an inquiry in regard to their qualifications different from similar inquiries when applied to all other citizens. The regulation which it assumes to make is partial, and calculated injuriously to restrain and impede, in the exercise of its rights, the class to which it applies, in that it denies to this class, for the period of thirty days, the exercise of a right which the Constitution has conferred upon it. There is no warrant for this within the just and constitutional limits of the legislative power, which permits reasonable and uniform regulations to be made as to the time and mode of exercising the right of suffrage, and as to the ascertainment of the qualifications of voters. We must therefore pronounce section 7 of the statute of 1885, chapter 345, to be unconstitutional.

It is not contended by the defendants that the action cannot be maintained unless the statute in question is constitutional. See *Kilham v. Ward*, *ubi supra*; *Lincoln v. Hapgood*, 11 Mass. 350, 353; *Blanchard v. Stearns*, *ubi supra*; *Larned v. Wheeler*, 140 Mass. 390.

The case is to stand for trial, and the entry will be :

*Demurrer overruled.**

CHAS. THEO. RUSSELL, Jr., *for the plaintiff.*

CHARLES J. MCINTIRE *for the defendants.*

* The statute in question, section 7 of chapter 345 of the Acts of 1885, was repealed by the Act of 1887, chapter 329.

COMMONWEALTH *v.* FRANK MCGURTY.

REPORTED IN 145 MASS. 257.

Suffolk, Nov. 21, 22, 1887. Present, MORTON, C. J., FIELD, CHARLES ALLEN, HOLMES and KNOWLTON, JJ.

Indictment — Evidence. At the trial of an indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, secondary evidence of the character of the ballot, which has been destroyed by the city clerk, as required by section 26, is admissible.

Same. At the trial of an indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, if the evidence shows that the ballot came from the ballot-box which was actually used in the election, it is not necessary to show that the ballot has been cancelled by a mechanical device, as provided in section 10 of the statute.

Same. An indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast at a municipal election of a city for Nelson S. Wakefield for a certain office, by "drawing lines and marks across the words and name Nelson S. Wakefield," is sustained by proof that the words and letters "S. Wakefield" only were so erased by the defendant.

Same. A ballot cast, at a municipal election of a city, for a candidate for an office, who is not elected, is a "ballot cast for any officer," within the meaning of those words in the statute of 1884, chapter 299, section 43, prescribing a penalty for the fraudulent alteration of such a ballot.

Same. It is no defence to an indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, that the fraud was discovered, and the ballot was counted and returned for the candidate for whom it was intended to be cast.

Indictment on the statute of 1884, chapter 299, section 43,* alleging that the defendant, on Dec. 14, 1886, at Boston, at the annual municipal election of said city, wilfully, maliciously, unlawfully, and with intent to cheat and defraud, altered a ballot then and there cast for a certain officer, to wit, for Nelson S. Wakefield for alderman of said city, by then and there, with a certain lead pencil, "drawing lines and marks across the words and name Nelson S. Wakefield." Trial in the superior court, before Blodgett, J., who allowed a bill of exceptions, in substance as follows: —

The government called as a witness a police officer named Comee, who testified that he was on duty on Dec. 14, 1886, at precinct one of Ward 25, Boston, where the defendant was an inspector; and that the defendant, while in the performance of his duties as such inspector, and while counting ballots, after the close of the

* "Whoever, with intent to cheat or defraud, alters any ballot cast for any officer at any election held for the choice of public officers . . . shall be punished," etc. (Re-enacted Acts of 1890, chapter 423, section 131.)

polls, with a lead pencil, which he held in his right hand, drew lines and marks upon a certain ballot, over and across a certain letter and word upon said ballot, to wit, the letter and word "S. Wakefield;" and further testified as to the appearance of the ballot after said alleged alteration, and as to the lines and marks over and upon the letter and word "S. Wakefield."

The defendant requested the judge to rule that the witness could not testify as to what he saw the defendant then do, or to the marks or alterations on, or to the appearance of, said ballot after the alleged alteration, without the production of the ballot. The government introduced evidence, which was not controverted, that all the ballots cast at the municipal election in the city of Boston, in December, 1886, were destroyed by the city clerk, in January, 1887, as required by the statute of 1884, chapter 299, section 26. The judge refused to rule as requested.

The government introduced other evidence, tending to show that, during the day, and while the polls were open, there were on duty at said precinct the defendant, as an inspector, the warden, named Hibbard, a clerk named Woods, and another inspector named Harris; that when the polls were closed, the ballots were emptied by said officers out of the ballot-box on to a table, for counting; and that the defendant, while counting a pile of ballots, made the alteration charged in the indictment. The defendant requested the judge to rule that there was not sufficient evidence in the case that the ballot alleged to have been altered was "cast," within the intent and purpose of the statute. The judge refused so to rule.

There was evidence in the case that the name or word "Nelson" was not in any way touched or altered by the defendant, but that "S. Wakefield" only was marked over and altered by him. The defendant requested the judge to rule that there was a variance between the proof and the allegation or alteration in the indictment. This request was refused.

The government introduced evidence, which was uncontroverted, that Nelson S. Wakefield was the candidate for alderman at said election from the eleventh aldermanic district of the city of Boston, and was defeated; and there was no other evidence in the case that he held any office. The defendant requested the judge to rule that, on all the evidence in the case, Nelson S. Wakefield was not an "officer," within the intent and purpose of the statute. The judge refused so to rule.

It appeared in evidence, which was uncontroverted, that the warden, Hibbard, ordered that the ballot be, and it was accordingly, counted and returned for Nelson S. Wakefield. The defend-

ant requested the judge to rule that the defendant had committed no crime, within the intent and meaning of the statute. The judge refused so to rule.

The jury returned a verdict of guilty ; and the defendant alleged exceptions.

F. Burke, for defendant.

A. J. Waterman, Attorney-General, for the Commonwealth.

C. ALLEN, J. 1. It was impossible to produce the ballot at the trial, because it had been destroyed by the city clerk, as required by the statute of 1884, chapter 299, section 26. It is now objected that such destruction must be deemed to have been the act of the prosecutor, namely, the government, and that therefore the government could not properly be allowed to introduce secondary evidence of what the ballot was. But the destruction of ballots, under this general provision of law, cannot be deemed a wrongful or negligent destruction of a document, or one which involves any fault upon the part of the government or its agents ; and the case does not fall within the doctrine, which has sometimes been declared or implied, that a document which has been destroyed through the fault of the prosecutor cannot be proved by secondary evidence. See 3 Greenl. Ev., section 107 ; *Commonwealth v. Snell*, 3 Mass. 82 ; *Joannes v. Bennet*, 5 Allen, 169.

2. It was not necessary to show that the ballot had been cancelled by a mechanical device, as provided in section 10 of the statute. Such cancellation is not essential to insure the counting of a ballot, since section 12 makes provision for the case where a ballot-box containing such mechanical device cannot be furnished. Besides, the evidence showing that the ballot came from the ballot-box which was actually used in the election would warrant the inference that it had been duly cast within the meaning of section 43.

3. The alteration was sufficient to sustain the indictment. If the ballot had been originally cast, with the erasure shown, it could not properly have been counted as a ballot for Mr. Wakefield. The erasure was sufficient to "alter" the ballot, so that the voter's intention would have been defeated if the fraud had not been observed or discovered. The name upon the ballot is to be taken as a whole. If the lines and marks drawn across it were sufficient to show an apparent intention upon the part of the voter to erase the name, so that the ballot would not be counted as a vote for Mr. Wakefield, that is sufficient to support the charge of altering the ballot by drawing lines and marks across the words and name "Nelson S. Wakefield."

4. The objection that the vote for Mr. Wakefield was not a "ballot cast for any officer," because he was merely a candidate

for office, and was not elected, cannot prevail. The statute merely uses a short form of expression, and the meaning is not open to doubt; otherwise the statute would only apply to existing officers who might be candidates for re-election. The phraseology of "voting for any officers to be then chosen" is common and familiar in the legislation of this Commonwealth. Public Statutes, chapter 7, section 55. General Statutes, chapter 7, section 28. See also statute 1884, chapter 299, section 41.

5. The fact that the fraud of the defendant did not succeed, and that, by direction of the election officer, the ballot was counted and returned for Mr. Wakefield, cannot avail the defendant in defence of the indictment. The ballot was altered with intent to cheat and defraud, although the fraud was discovered at once.

Exceptions overruled.

JOSEPH RIDGWAY v. CITY OF HAVERHILL.

REPORTED IN 152 MASS. 530.

Essex, Nov. 7, 1890 — Nov. 28, 1890. Present, FIELD, C. J., DEVENS, W. ALLEN, HOLMES and MORTON, JJ.

Compensation of City Clerk. The clerk of a city voting precinct, required by statute to attend the meeting of such clerks within a representative district on the tenth day following the election and to make a record of the returns of votes, is entitled, under a vote of the city council fixing the compensation of such clerks at a certain sum per day "for actual services," to one day's pay for attending the meeting, but not to another day's pay for making the record.

Contract to recover twenty-five dollars for personal services as clerk of a voting precinct in the defendant city. The case was submitted to the Superior Court, and, after judgment for the defendant, to this court, on appeal, on agreed facts, which appear in the opinion.

N. C. Bartlett, for the plaintiff.

B. B. Jones, for the defendant.

FIELD, C. J. Pursuant to the statute of 1884, chapter 299, section 8, the city council of the city of Haverhill, in the year 1886, established the salaries of precinct officers for the next municipal year as follows: "Wardens, precinct clerks, and inspectors, for actual service per day, each \$5.00;" and in the year 1887 the city council established the salaries for the next municipal year as follows: "Precinct clerks, for actual services per day, each \$7.50." The plaintiff was clerk of a voting precinct in the city for the years 1887 and 1888, and he performed services as such clerk. Apparently he has been paid for his services on election days, and he sues to recover pay in each year for one day's services in "attending convention of clerks to ascertain result of vote for representative" to the General Court, and for one other day's services in "writing record of said convention." See Pub. Sts. c. 8, §§ 9-12, 22; St. 1884, c. 299, § 8; St. 1886, c. 262, §§ 5, 6. The time consumed in attending the convention was one hour, with a mile of travel additional to and from the place of meeting, and the writing of the record filled up another hour.

The plaintiff, by virtue of his office, was required to attend the meeting of the clerks of cities, towns, and wards, which make up a representative district, and this meeting was fixed by statute for

the tenth day following the election of representative; and for attending this meeting we think that the plaintiff is entitled, on the facts stated, to one day's pay in each year. The record he could have made at any time after the meeting, and within four days of it; and it appears in this case that he could have made the record in each year on the day of the meeting, and the making of the record is rather an incident of the meeting than a separate and independent duty; for doing this we think that, on the facts stated, the plaintiff is not entitled to any pay. The result is that the judgment of the Superior Court is reversed, and judgment must be entered for the plaintiff for \$12.50.

So ordered.

ICHABOD N. LUCE *v.* BOARD OF EXAMINERS OF DUKES COUNTY.

REPORTED IN 153 MASS. 108.

Dukes County, Oct. 29, 1890—Jan. 12, 1891. Present, FIELD, C. J., W. ALLEN, C. ALLEN, and KNOWLTON, JJ.

Return of Votes. When invalid. The board of examiners of election returns ordered a town clerk, under the statute of 1885, chapter 229, section 1, to transmit a new return of the votes cast in the town for a county commissioner in place of the return first made by him, which did not show where or when the election was held, or that the record was of a meeting of the inhabitants of the town, unless inferrible from the facts that it purported to be certified by persons described as "selectmen of the town," naming it, and was attested by a person described as "clerk of said town." The new return, besides having the defects of the first return, was not certified by any persons purporting to be selectmen, and the name of the town nowhere appeared in it. A petition for a writ of mandamus was filed to compel the board to receive the returns and count the votes with those returned from the other towns in the county, and to declare the election of the petitioner as county commissioner, and to notify him thereof. Held, that the board was not bound to receive or treat either return as valid; and that the petition was properly dismissed.

Mandamus. It seems that mandamus will lie to enforce the right of a person elected county commissioner to act as such, and to prevent an intruder from performing the duties of the office.

Petition for a writ of mandamus to compel the respondents to count for the petitioner certain ballots cast for county commissioner, and to notify him of his election, in place of one Henry Ripley, declared by the respondents to be elected to the office. Hearing before C. Allen, J., who dismissed the petition, and reported the case for the consideration of the full court. The facts appear in the opinion.

E. J. Hadley, for the petitioner.

H. M. Knowlton, for the respondents.

FIELD, C. J. If the facts in this case are as for the purpose of the case they have been conceded to be, it seems that the petitioner was duly elected county commissioner for Dukes County, and that Henry Ripley was not elected. But in this petition for mandamus the right of the petitioner to the office cannot be tried. The object of the petition is to compel the board of examiners to receive the returned copy of the votes cast for county commissioner in the town of Tisbury, at the election held on Nov. 5, 1889; to count the votes thus returned with the votes returned from the other towns of the county; to declare the petitioner elected to the office of county commissioner, and to notify him of his election.

Pub. Sta., c. 7, §§ 26, 40, 48; c. 23, § 31; St. 1885, c. 229. The duties of this board are defined in *Clark v. Board of Examiners*, 126 Mass. 282, and in *Luce v. Mayhew*, 13 Gray, 83. The members of the board are ministerial officers, not authorized to hear witnesses, or to weigh evidence. "If one result appears upon the returns, and another is the real truth of the case, they can only act upon the former." *Luce v. Mayhew*, 13 Gray, 85. By the copy of the record first returned to the clerk of the courts by the clerk of the town of Tisbury, it does not appear where the election therein described was held, or in what year it was held, nor does the return appear to be a copy of the record of a meeting of the inhabitants of the town of Tisbury, except as this may be inferred from the fact that the record purports to be signed by three persons, who are described as "selectmen of the town of Tisbury," and to be attested by William S. Swift, who is described as "clerk of said town."

This return was duly presented to the board of examiners by the clerk of the courts, and they, finding it incomplete, in pursuance of the statute of 1885, chapter 229, ordered the clerk of the town of Tisbury to make and transmit a new copy of the record of the votes of the town for county commissioner. The new return made by the clerk has all the defects found in the first return, and was not certified by any persons purporting to be selectmen. It was attested by William S. Swift, who is described as "clerk of said town," but the name "Tisbury" nowhere appears in it, and it is impossible to ascertain from an examination of it in what town the election was held and the votes were cast. In neither of these returns was there, we think, a substantial compliance with the requirements of the statute by the clerk of the town of Tisbury, and we are of opinion that the board of examiners was not bound to receive either of these returns and treat it as a valid return. *Clark v. Board of Examiners*, 126 Mass. 282; *Luce v. Mayhew*, 13 Gray, 83.

Whether the board might not have continued to order "a new copy of the votes" to be made and transmitted by the clerk of the town, until a copy was received which showed a compliance with the statute, is a question not argued. The board had no authority to compel the clerk to make new returns, and this petition was not brought for this purpose. Whether the petitioner can proceed by mandamus against the clerk of the town of Tisbury to compel him to make a proper return to the clerk of the courts, and then by successive writs of mandamus compel the clerk of the courts to present this return to the board of examiners, and the board to receive and examine it with the others, and to declare the

petitioner elected county commissioner, and to notify him of his election, if these persons refuse to perform their lawful duty, need not now be considered. Undoubtedly, it is true that the title of Henry Ripley to the office may be tried at any time before the term of office expires, on an information in the nature of quo warranto, and that after he has been ousted from the office the remaining county commissioners may be compelled by mandamus to recognize the petitioner as a county commissioner, if he has received what is equivalent to a certificate of election. But it is plain that a contested election ought to be determined as soon as possible, and that, if all these proceedings are necessary, the delay and expense may be such as to amount almost to a denial of any adequate remedy. The petitioner apparently has proceeded on the theory that it is necessary that he should be declared elected by the board of examiners, and notified by it of his election, before he can be admitted to perform the duties of his office. We think that this is erroneous.

In any body of public officers, which finally determines the election of its own members, the vote of the body declaring a person elected is conclusive evidence of his title to the office, although some other person may have received the certificate of election from a body authorized in the first instance to determine the result of the election. When the title to an office can be tried on quo warranto, a judgment of ouster is conclusive evidence that the defendant does not lawfully hold the office, although he may have duly received the certificate of election. Under our practice, when there is a contest concerning the election of a member of a board composed of more than one person, mandamus has been used to compel the members of the board to admit the petitioner if he is found by the court to have been elected a member, and also to compel the person who, instead of the petitioner, has intruded himself into the office, to refrain from performing the duties of the office. The use of the writ of mandamus to try the title to an office, and to put one person out of and another person into an office, is undoubtedly unusual, and opposed to the weight of authority in other jurisdictions. But the nature of the proceedings in mandamus under our statutes seems well adapted to accomplish these results in a case like the present. The title of the incumbent to the office is involved in the determination of the title of the petitioner; the hearing on the application for the writ may be had upon the petition, the court may summon in "any person having or claiming a right or interest in the subject matter," and if an alternative writ is issued the petitioner may traverse "any material facts contained in" the return. Pub. Sts. c. 186, §§ 13-16.

The reported cases in which this remedy appears to have been used relate to the election of a town officer who was but one of a board. *Putnam v. Langley*, 133 Mass. 204; *Conlin v. Aldrich*, 98 Mass. 557. In each of these cases, as we infer from the published report, the office claimed by the petitioner was claimed by another person, who had intruded himself into the office, and was performing its duties with the assent of the other members of the board. This question of remedy was considered in *Strong, petitioner*, 20 Pick. 484, 496, and the court expressed the opinion that mandamus would lie to place one in an office which was actually filled by another, although the incumbent had not been removed by a quowarranto. This opinion, however, was not necessary to the decision. That case was like the present, except that there the court held that, on the face of the returns before the board of examiners, the petitioner was entitled to a certificate of his election, and the writ of mandamus was issued. It certainly deserves consideration, in any future proceedings by the petitioner, whether the grounds on which it was held in *Putnam v. Langley*, and *Conlin v. Aldrich*, that mandamus was a proper remedy, are not equally applicable to the present case, whereby in one suit the whole controversy can be speedily decided upon its merits. See 2 Dillon, Mun. Corp. (4th ed.), sections 845, 846. The present petition must be dismissed.

So ordered.

OPINION OF THE JUSTICES TO THE SENATE AND HOUSE OF REPRESENTATIVES.

REPORTED IN 157 MASS. 595.

Enumeration of Voters. Ward Lines. Under the twenty-first and twenty-second amendments to the Constitution of the Commonwealth there must be an enumeration of the legal voters residing in every ward of a city which is to constitute in the next apportionment the whole or a part of any representative or senatorial district. Such wards must be in existence on the first day of May of the year in which the census is taken, and this is the only requirement concerning the wards in which a census of the legal voters is to be taken. The new wards, if any, which may be created in pursuance of the statute of 1898, chapter 437, section 1, are the wards intended to be used in making the next apportionment of senators and representatives.

Apportionment of Senators and Representatives. When to be made. The twenty-first and twenty-second amendments to the Constitution of the Commonwealth require the apportionment of representatives and senators to be made by the Legislature at its first session after the return of the enumeration provided for in said articles; and until the new apportionment is made, the old apportionment must be followed in the election of senators and representatives.

Existing Ward Lines to be followed. The twenty-first and twenty-second amendments to the Constitution of the Commonwealth must be construed with reference to the facts existing at the time when they were adopted, and the provisions concerning wards must be held to apply to wards if they exist, and not to require that every city should be divided into wards. The number of legal voters in a city may be such as to make it necessary that it be divided into wards in order properly to constitute the representative or senatorial districts, or the number may be sufficient to constitute only a single representative district or a part of one.

On April 5, 1893, the following order was adopted by the House of Representatives, and on April 10, 1893, by the Senate, and was transmitted on April 22, 1893, to the Justices of the Supreme Judicial Court, who, on April 28, 1893, returned the answer which is subjoined:—

Whereas, by resolves dated May 21, 1886, the Legislature obtained the opinion of the Justices of the Supreme Judicial Court of the Commonwealth upon the proper construction of the Constitution, especially in regard to the meaning and effect of the words “ward of a city;” and

Whereas, such opinion reversed the action of the Commonwealth as taken in 1865 and 1875, and compelled the decennial apportionment in 1885 of senators and representatives to be made according to the lines of the wards of cities as they existed on May 1, 1885, instead of the lines of new wards made after the taking of the decennial State census; and

Whereas, the Legislature by suitable enactments, and more especially by chapter 437 of the Acts of 1888, has undertaken to provide that the various cities of the Commonwealth, may, between

February 10 and May 1 in the year 1895, make a new division of their respective territories into wards, but, of course, not by any reference to the decennial State census which will be taken on the first day of May, 1895; and

Whereas, on the first day of May, 1895, there will be in every city the wards which have been in existence since 1885, which wards will be recognized at the State election in November, 1895, and at any special State election until November, 1896; and

Whereas, the above cited opinion of the Supreme Judicial Court has set forth that, under the laws in force in 1886 (and which have since been repealed), there was 'one system of wards for the purpose of electing councillors, senators, and representatives, and a different system of wards for all other purposes;' but the said court has not decided whether there can be, at the same time, two distinct systems of wards for the purpose of electing councillors, senators, and representatives;

Therefore, it is ordered by the General Court, in each branch thereof, that the opinion of the Justices of the Supreme Judicial Court be required upon the following important questions of law:—

First. In case any city, in accordance with the terms of any statute upon the subject, shall have undertaken to make a new division of its territory into wards, in the State decennial census of 1895, to be taken and returned into the office of the Secretary of the Commonwealth, shall the enumeration of legal voters residing in each ward of such city be made according to such new division, or according to the ward lines which have been the indivisible parts of councillor, senatorial, and representative districts since 1885, and which will continue until the State elections in November, 1896?

Second. Under the terms of the Constitution, the census is to be taken in 1895, and a new apportionment of senators and representatives is to be made by the General Court at its first session thereafter, viz., in 1896. But by Article XXI. and XXII. of the Amendments to the Constitution, the enumeration aforesaid shall determine the apportionment of representatives and senators "for the periods between the taking of the census." What provision is made for the apportionment and election of members in the year following the census and before the new apportionment?

Third. Does the requirement that the decennial enumeration of legal voters shall specify the number residing in each ward in a city establish a constitutional provision that cities must always contain wards? If so, is there any definition establishing what constitutes a ward?

To the Honorable the Senate and the House of Representatives of the Commonwealth of Massachusetts.

We received on the 22d instant your order adopted in concurrence, a copy of which is annexed, and we respectfully submit the following opinion:—

First. Article XXI. and Article XXII. of the amendments to the Constitution both provide as follows: "In the census aforesaid, a special enumeration shall be made of the legal voters; and in each city said enumeration shall specify the number of such legal voters aforesaid, residing in each ward of such city. The enumeration aforesaid shall determine the apportionment of representatives [or senators] for the periods between the taking of the census." There must therefore be an enumeration of the legal voters residing in every ward of a city which is to constitute in the next apportionment the whole or a part of any representative or senatorial district. Such wards must be wards in existence on the first day of May of the year in which the census is taken, and this is the only requirement of these Articles concerning the wards in which a census of the legal voters is to be taken. The Legislature, if it sees fit, can also provide for the enumeration of the legal voters residing in any other defined districts or parts of a city, but these Articles of the Constitution do not require this to be done. Under St. 1888, c. 438, the new wards, if any, which may be created in pursuance of the first section, are undoubtedly the wards intended to be used in making the next apportionment of senators and representatives.

Second. Until the new apportionment is made, the old apportionment must be followed in the election of senators and representatives. These Articles of the Constitution require the apportionment to be made by the Legislature at its first session after the return of the enumeration. In the year 1895 a census must be taken on the first day of May, which is to be returned into the office of the Secretary of the Commonwealth on or before the last day of June. If there is a session of the Legislature begun and held in the year 1895, after the return of this enumeration, it is its duty to make the apportionment, and the apportionment may possibly be completed before the annual election in November of that year. If this happens, then this election must be held under the new apportionment. If there is no such session, then the Legislature at its session to be begun on the first Wednesday of January, 1896, must make the apportionment. The Legislature is to divide the Commonwealth "into forty districts of adjacent territory," each of which shall elect one senator; and

“no town or ward of a city shall be divided therefor.” The Legislature is also to apportion to the several counties of the Commonwealth the representatives to which each county is entitled. The mayor and aldermen of the city of Boston and the county commissioners of other counties than Suffolk, unless special commissioners are elected for the purpose, “shall, on the first Tuesday of August next after each assignment of representatives to each county, assemble at a shire town of their respective counties and proceed” to divide each county into representative districts of contiguous territory; “and such districts shall be so formed that no town or ward of a city shall be divided therefor, nor shall any district be made which shall be entitled to elect more than three representatives.” A description of these districts “shall be returned by the board to the Secretary of the Commonwealth, the county treasurer of each county, and to the clerk of every town in each district, to be filed and kept in their respective offices.”

Unless, then, the new apportionment is complete before the annual election of the year 1895 is held, it must necessarily be held under the old apportionment. We do not feel called upon to consider whether it may not be possible that an apportionment may be considered as complete for the purpose of electing senators, and yet remain incomplete for the purpose of electing representatives, because the condition of things which might occasion such an inquiry is not likely to arise. The clause that “The enumeration aforesaid shall determine the apportionment of representatives [or senators] for the periods between the taking of the census,” must mean that the apportionment is to be made upon the enumeration, and that the apportionment, after it is made, must determine the representative and senatorial districts and the number of representatives appropriate to each representative district until a new enumeration and an apportionment have been made. The enumeration and the apportionment are parts of one proceeding for distributing among the cities and towns of the Commonwealth in just proportion, every ten years, the senators and representatives to be elected during that period.

Third. These Amendments to the Constitution were not passed to regulate the municipal organization of cities. The Constitution as originally framed made no provision for cities. Article II. of the amendments first authorized the General Court “to erect and constitute municipal or city governments,” etc., and “to prescribe the manner of calling and holding public meetings of the inhabitants, in wards or otherwise, for the election of officers under the Constitution, and the manner of returning the votes given at such meetings.” When Articles XXI. and XXII. were adopted,

every city charter which had been granted contained provisions for dividing the city into wards, and we believe that up to the present time all city charters which have been granted contain similar provisions, and we are not aware of any intention on the part of the Legislature to create cities without wards. These articles must be construed with reference to the facts existing at the time when they were adopted, and the provisions concerning wards must be held to apply to wards if they exist, not to require that every city should be divided into wards. The number of legal voters in a city may be such as to make it necessary that it be divided into wards in order properly to constitute the representative or senatorial districts, or the number may be sufficient to constitute only a single representative district or a part of one. The town of Brookline, for example, had in the year 1890 sufficient population to become a city. It at present constitutes one representative district, entitled to one representative, and it is a part of a senatorial district. If it should be made a city, and retain the same population as it had in the year 1890, there is nothing in Articles XXI. and XXII. which requires that it should be divided into wards.

WALBRIDGE A. FIELD.

CHARLES ALLEN.

OLIVER WENDELL HOLMES, JR.

MARCUS P. KNOWLTON.

JAMES M. MORTON.

JOHN LOTHROP.

JAMES M. BARKER.

APRIL 28, 1893.

SUPPLEMENT.

DIGEST OF DECISIONS OF SUPREME JUDICIAL COURT RELATING TO INHABITANCY AND RESIDENCE, 139 MASS. TO 158 MASS. INCLUSIVE.

1. *Evidence inadmissible on question of domicil.*—Upon the issue whether plaintiff had changed his domicil from Cambridge to a town in another State about October, 1881,—evidence that in the autumn of 1880 he declined to accept a nomination for the common council of Cambridge, or to serve, if elected, “on the ground that he had no connection with, or interest in, the affairs of Cambridge,” was properly excluded. Such evidence, if admissible under any circumstances, could only be admissible upon the question whether at that time he was domiciled in Cambridge, and this was not in dispute. As evidence that the plaintiff’s interest in Cambridge was slight, and therefore that it was probable that he would some time break the connection, it is too indefinite and remote to be admitted as evidence to show that he afterward actually abandoned his domicil in Cambridge and acquired another in Greenland. *Pickering v. Cambridge*, 144 Mass. 244.

2. *Same.*—Upon the issue whether plaintiff had changed his domicil from Cambridge about October, 1881, to Greenland, N. H., evidence of a statement made by him upon his farm in Greenland in November, 1881, to his superintendent, when giving him instructions regarding the work on the farm, that he had now made Greenland his residence and domicil, and wished to be taxed there, and to vote there, and to become a citizen of the town, and that he had left Cambridge as a resident; and evidence of a statement made by him in the autumn of 1881 to a witness, when plaintiff requested him to go to Greenland and “make and report to him an estimate of the expense of making certain repairs and improvements in the house there,”—that the plaintiff “had changed his residence from Cambridge to Greenland, and that he was no longer an inhabitant or citizen of Cambridge,”—were properly excluded. The declarations were in plaintiff’s favor, and were made to persons who in no respect represented either the

city of Cambridge or the town of Greenland, and were not admissible as part of the *res gestæ*. *Id.*

3. *Same.* Upon the issue whether a pauper had a domicile in the defendant town, evidence that, at a previous time the overseers of the poor of the town, upon notice from a third town that the pauper needed relief, took the pauper to their town and furnished relief, is inadmissible. The overseers in such action acted as public officers and not as agent of the town, and the action cannot be regarded as admissions by the town or its agent. *South Scituate v. Stoughton*, 145 Mass. 535.

4. *Change of domicile by insane person.*—If an insane person, of sufficient mental capacity to change his domicile, in good faith removes his residence to another state, pending proceedings here for the appointment of a guardian over him, and if his residence there continues until his death, and is assented to by his guardian after his appointment, he is such a resident of that state that its courts have jurisdiction of the original probate of his will. *Talbot v. Chamberlain*. 149 Mass. 57.

5. *Requirements of domicile.*—To acquire a domicile there must be a residence in the place and an intention to make that place one's home. *Viles v. Waltham*, 157 Mass. 542.

6. *Declarations are evidence.*—Declarations of a person accompanying a change of his abiding place have always been held competent to explain the change as a part of the *res gestæ*; but declarations in such cases are often admissible on a broader ground than as a part of the act of removing from one place to another. The intention of the person removing is competent to be proved as an independent fact, and anything which tends to show his intention in making the change may be introduced if it is free from objection in other particulars. The intention may be inferred from acts and conduct, and conduct which tends to show the intention is competent for that purpose. Declarations which indicate the state of mind of the declarant naturally have a legitimate tendency to show intention. *Id.*

7. *Acts and conduct evidence.*—When one has changed his place of abode, and the question arises whether he intended to change his domicile, all his acts and conduct which fairly indicate his purpose in that particular within a reasonable time before and after the event may be put in evidence, together with the declarations accompanying such acts. *Id.*

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ACTION AGAINST SELECTMEN.

An action can be maintained against the selectmen of a town by a person whose name is wrongfully erased by them from the register of voters required to be kept by Pub. Stats., chap. 6, § 13, if at a meeting held for the purpose of registration he appeared before the selectmen and furnished them with proper and sufficient evidence of his qualifications; and proof is unnecessary that in causing his name to be erased the selectmen acted wilfully and maliciously. *Larned v. Wheeler*, 50.

In such action it is not material whether the plaintiff actually tendered his ballot at the election, as it could not have been received, his name not being upon the list, nor whether the tax collector had or had not returned the plaintiff's name as having paid his tax, the injury done to the plaintiff not being an omission or neglect to register his name, but an erasure of the name. *Id.*

ALDERMEN, RECOUNT BY.

Where, upon petition to the aldermen for a recount of votes, the larger number of ballots were recounted by four persons (not aldermen), two representing each candidate, at a time and in a room where other recounts were being made, and no aldermen took any part in, or supervision over, such recount or tabulation; and where there was evidence that marks upon certain ballots were, at the recount, counted as votes, which were not in fact votes, the recount is invalid. *Haigh v. McNally*, 57.

APPORTIONMENT OF SENATORS AND REPRESENTATIVES.

The Constitution of the Commonwealth does not intend that the apportionment of senators and representatives, which affects the people of the whole State, shall be determined by any enumeration taken by officials of cities or towns, or by the number of voters ascertained in any other mode than that which it provides, but clearly intends that the official enumeration, taken and returned to the office of the Secretary of the Commonwealth, under the authority and by officers of the Commonwealth, shall be the sole guide of the General Court in making the apportionment. *Opinion of Justices*, 67.

Under the twenty-second amendment to the Constitution, providing for the taking of the census and enumeration of the legal voters of each city and town, and requiring in each city a special enumeration of the legal voters residing in each ward, which enumeration shall determine the apportionment of senators for the periods between the taking of the census, — and also providing that in such apportionment the General Court shall divide the Commonwealth into forty senatorial districts of adjacent territory, each district to contain as nearly as may be an equal number of legal voters according to the enumeration aforesaid, provided, however, that no town or ward of a city shall be divided therefor, — the General Court in making such apportionment and division of senatorial districts must be governed by the boundaries of the towns and wards of cities as they existed upon the first day of May in the year in which the census is taken, and not as they exist at the time of such apportionment and division, if in the meantime there has been any change in such boundaries. *Id.*

APPORTIONMENT OF SENATORS AND REPRESENTATIVES — *Concluded.*

The twenty-first article of amendment of the Constitution, as it contains similar provisions in regard to the enumeration of the legal voters of each city and town, and the apportionment of representatives in accordance therewith, must receive the same construction as the twenty-second article of amendment, in determining the proper boundaries of towns and wards of cities to be considered in making the apportionment of representatives. *Id.*

Under the twenty-first and twenty-second amendments to the Constitution of the Commonwealth there must be an enumeration of the legal voters residing in every ward of a city which is to constitute in the next apportionment the whole or a part of any representative or senatorial district. Such wards must be in existence on the first day of May of the year in which the census is taken, and this is the only requirement concerning the wards in which a census of the legal voters is to be taken. The new wards, if any, which may be created in pursuance of the statute of 1888, chapter 437, section 1, are the wards intended to be used in making the next apportionment of senators and representatives. *Opinion of Justices, 94.*

The twenty-first and twenty-second amendments to the Constitution of the Commonwealth require the apportionment of representatives and senators to be made by the Legislature at its first session after the return of the enumeration provided for in said articles; and until the new apportionment is made, the old apportionment must be followed in the election of senators and representatives. *Id.*

The twenty-first and twenty-second amendments to the Constitution of the Commonwealth must be construed with reference to the facts existing at the time when they were adopted, and the provisions concerning wards must be held to apply to wards if they exist, and not to require that every city should be divided into wards. The number of legal voters in a city may be such as to make it necessary that it be divided into wards in order properly to constitute the representative or senatorial districts, or the number may be sufficient to constitute only a single representative district or a part of one. *Id.*

AUSTRALIAN BALLOT SYSTEM.

For imperfect marking of official ballot,
See MISTAKE.

BALLOT.

A ballot cast, at a municipal election of a city, for a candidate for an office, who is not elected, is a "ballot cast for any officer," within the meaning of those words in the statute of 1884, chapter 299, section 43, prescribing a penalty for the fraudulent alteration of such a ballot. *Commonwealth v. McGurty, 84.*

If ballots otherwise entitled to be counted are marked "Cancelled" by the mistake or fraud of an election officer, they can be counted upon proof of the regularity of the ballot, and of such mistake or fraud on the part of an election officer. *Opinion of Attorney-General, 49.*

For mistake in name on ballot,
See MISTAKE.

For mode of marking official ballot,
See MISTAKE.

CENSUS.

See APPORTIONMENT OF SENATORS AND REPRESENTATIVES.

CLERK OF CITY,—COMPENSATION.

The clerk of a city voting precinct, required by statute to attend the meeting of such clerks within a representative district on the tenth day following the election and to make a record of the returns of votes, is entitled, under a vote of the city council fixing the compensation of such clerks at a certain sum per day "for actual services," to one day's pay for attending the meeting, but not to another day's pay for making the record. *Ridgway v. Haverhill*, 88.

CLERK OF TOWN.

For duty to make proper return of votes,
See RETURNS OF VOTES.

CONSTITUTION.

The right of each State to define the qualifications of its voters is complete and perfect, except as controlled by the fifteenth article of amendment to the Constitution of the United States. These qualifications in Massachusetts are fixed by the Constitution of the Commonwealth, and to these provisions of the Constitution all legislation is subordinate. The Legislature cannot add to nor diminish the qualifications of a voter as prescribed by the Constitution. *Kinszen v. Wells*, 77.

While the Legislature can make any reasonable, uniform and impartial regulation of the mode of exercising the right of suffrage, and ascertaining the qualifications of voters, it cannot add to the prescribed qualifications; nor can it discriminate between different classes of voters, and impose requirements upon one class not imposed upon others. *Id.*

For provisions regarding the apportionment of senators and representatives,
See APPORTIONMENT.

COUNTING VOTES.

See BALLOT.
MISTAKE.

DOMICIL.

A voter who, on October 30, preceding the election of representative, moved his family and furniture to a place outside the representative district and there took up a permanent abode, with no intention of resuming his former residence, has ceased to reside in such district and has no right to vote there at such election. *Mansfield v. Hitchings*, 3.

A voter who, having no family, had spent the greater part of the year in Saugus for four years previous to the election, and had worked in Lynn and boarded there during the winter months, with the exception of one winter when he worked in Lynn and boarded in Saugus, being assessed and registered as a voter in Saugus for several years, was *held*, upon his testimony that he was only temporarily in Lynn and expected to return to Saugus the next summer, to have acquired no domicile in Lynn, and to have been qualified to vote in Saugus. *Id.*

For digest of decisions of supreme judicial court (139-158 Mass.), 99.

ELECTION.

The mere fact that a number of illegally registered votes were cast and counted at an election was *held* by the House of Representatives insufficient reason for avoiding the election, in the absence of proof that the result of the election was changed thereby. *Mansfield v. Hitchings*, 3.

ELECTION — *Concluded.*

The Senate will not investigate the validity of votes cast and challenged at the election unless it appears that the result might be changed by such investigation. *Howard v. Neill*, 19.

The official return of votes, being *prima facie* correct, cannot be set aside by proof that votes were cast by persons not entitled to vote, unless it also is shown that the election officers in receiving such votes acted dishonestly or collusively, or unless it is proved that such votes were cast for the successful candidate and that their rejection would change the result. *Id.*

EVIDENCE.

At the trial of an indictment under the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, secondary evidence of the character of the ballot, which has been destroyed by the city clerk as required by section 28, is admissible. *Commonwealth v. McGurty*, 84.

At the trial of an indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, if the evidence shows that the ballot came from the ballot-box which was actually used in the election, it is not necessary to show that the ballot has been cancelled by a mechanical device, as provided in section 10 of the statute. *Id.*

An indictment on the statute of 1884, chapter 299, section 43, for altering a ballot cast at a municipal election of a city for Nelson S. Wakefield for a certain office, by "drawing lines and marks across the words and name Nelson S. Wakefield," is sustained by proof that the words and letters "S. Wakefield" only were so erased by the defendant. *Id.*

For effect of illegal votes upon,

See **ELECTION.**

FRAUD.

The Pub. Stats., chap. 7, § 57, providing that "whoever . . . at any national, State or municipal election . . . knowingly gives more than one ballot at one time of balloting at such election, shall be punished," does not apply to ballots given, at a municipal election of a city, upon the question of granting licenses for the sale of intoxicating liquors. *Commonwealth v. Howe*, 73.

HOUSE OF REPRESENTATIVES.

The House, or its committee, subject to its approval, has, under the Constitution, power to determine the evident intent of the voter from an inspection of the ballot, where the strict letter of the law has not been complied with. While its power is absolute, it has been accustomed in such cases to follow the rules of law. *Opinion of Attorney-General*, 49.

ILLEGAL VOTES.

For effect on election,

See **ELECTION.**

INDICTMENT.

It is no defence to an indictment under the statute of 1884, chapter 299, section 43, for altering a ballot cast for a certain officer at a municipal election of a city, that the fraud was discovered, and the ballot was counted and returned for the candidate for whom it was intended to be cast. *Commonwealth v. McGurty*, 84.

LEGISLATURE.

For power to regulate the registration of voters and elections,

See **CONSTITUTION.**

LEGISLATURE — *Concluded.*

For power to apportion Senators and Representatives,
See APPORTIONMENTS.

LICENSE OF SALE OF LIQUOR.

For effect of fraudulent voting on the question,
See FRAUD.

MANDAMUS.

No mandamus will lie to enforce the right of a person elected county commissioner to act as such, and to prevent an intruder from performing the duties of the office. *Luce v. Board of Examiners*, 90.

MARK.

For imperfect or improper mark on official ballot,
See MISTAKE.

MISTAKE IN MARKING OFFICIAL BALLOT.

Ballots in the form prescribed by Act of 1889, chapter 413, amending Act of 1888, chapter 436, section 10 (the Australian Ballot Act), although imperfectly marked by the voter, will be counted if the intention of the voter is clearly ascertainable. *Southwick v. Hart*, 26.

The provisions of chapter 413 of the Acts of 1889, amending chapter 436 of the Acts of 1888 (the Australian Ballot Act), in prescribing a cross (X) to be made by the voter, and specifying the place for such mark as the appropriate margin or place opposite the name of the candidate of his choice for each office, are directory and not mandatory,—so that a ballot informally or imperfectly marked should be counted, if it is possible to determine the intention of the voter. *Shepard v. Sears*, 30.

Marks in form of a cross (X) to the right of the name of a candidate on the official ballot, not in the square provided but before and on the line with the political designation, will, in an election controversy, be counted as votes for the candidate against whose name the marks are made, especially where the voter has marked for candidates for other offices in the same manner throughout the ballot. *Id.*

A voter who goes to the polls, receives the official ballot, enters the compartment, marks his ballot with a cross consistently throughout, and then deposits it in the ballot-box, is presumed to have intended to vote; and, if possible, the intention should be given effect. *Id.*

Ballots with the cross (X) marked, not in the square or place designated, but on the line between the residence and political designation of a candidate, will in an election controversy be counted for such candidate, in absence of proof that such mark was intended to reveal the identity of the voter. *Jones v. Loring*, 40.

Ballots with the cross (X) marked, not in the square or place designated, but on the line at the left of the name of the candidate, will in an election controversy be counted for such candidate, in absence of proof that such mark was intended to reveal the identity of the voter. *Id.*

Ballots marked with a caret or inverted V, or with a character consisting of two oblique strokes, like a rude letter Y, in the square designated on each ballot, opposite the name of the candidate, will in an election controversy be counted for such candidate, in absence of proof that such marks were intended to reveal the identity of the voter. *Id.*

MISTAKE IN MARKING OFFICIAL BALLOT — *Concluded.*

At a special election for representative all ballots bearing the name of but a single candidate will be counted for him, — whether originally printed on the ballot or printed upon a paster and pasted over the original name, so that but one name is visible for the candidate. *Doherty v. Haggerty*, 47.

At such election all ballots upon which the two names appeared, one originally printed and one affixed by paster to the ballot, and which contained the mark opposite the name of one candidate, will be counted for that candidate. *Id.*

At such election all ballots containing the names of the two candidates, but not containing the X mark against either, will be counted for neither. *Id.*

At a special election for representative, where the official ballot bears only one name and some official ballots are cast bearing such name and none other, but without any X or other mark, the ballot can be counted for the candidate named. *Opinion of Attorney-General*, 49.

Where, at such election, the official ballot bore the name of only one candidate, and the printed name of another candidate had been pasted in the space below it, and no X mark was made against either name, the ballot cannot be counted for either candidate. *Id.*

Where, at such election, the official ballot bears the name of only one candidate, and the X mark is made, not in the space to the right of the name, but in various other places on the face of the ballot, it can be counted for such candidate. *Id.*

A mark upon the back or outside of a ballot is not a mark in the sense of the law, and cannot be counted as indicating the voter's choice. *Id.*

Where, at such election, the official ballot bears only one name, and the name of another candidate is pasted not in the space below it, but in the same space, but not covering the name of the first candidate, and the X mark is made in the space to the right of both names, such ballot can be counted for either candidate, according to the voter's choice, if his intentions can be determined; and the writing or pasting of the name of a candidate on a ballot is competent evidence to show his intention to vote for such candidate. *Id.*

Where, at such election, the official ballot bears only one name, and that of another candidate is pasted over it, covering it, and the X mark is made in the space to the right of it, such ballot can be counted for the candidate whose name is so pasted. *Id.*

If in such case the paster does not fully cover the name printed on the official ballot, but only partially obliterates it, and the X mark is made in the proper place, the ballot will be counted for the candidate whose name is pasted, if under the circumstances the voter's choice can be determined. *Id.*

The provisions of law are mandatory so far as to require some mark upon the face of the ballot sufficient to make it possible to determine the voter's choice. The provision as to "insertion" or "filling in" the name of any candidate in the blank space at the end of the list of candidates is not mandatory, and it is not necessary that such "insertion" or "filling in" should be in that particular space. *Id.*

For rule to be applied and evidence in cases of incomplete or imperfect marking of official ballot,

See EDITORIAL NOTE, 41-44.

MISTAKE IN NAME OF CANDIDATE.

Votes cast for Joseph *Howrad* should, in an election controversy, be counted for Joseph *Houard*, upon proof that the name *Howrad* was printed by mistake upon certain ballots, and was intended for *Howard*; and that no person by name of *Howrad* was a known candidate for senator or lived in the district. *Howard v. Neill*, 19.

NATURALIZATION.

Section 7 of chapter 345 of the Acts of 1835, providing that "no person hereafter naturalized in any court shall be entitled to be registered as a voter, within thirty days of such naturalization," is in conflict with the Constitution of the Commonwealth and is void, because it adds to the qualifications of voters prescribed by the Constitution and imposes upon one class of voters, — newly naturalized citizens, — a requirement not imposed upon all voters. *Kinneen v. Wells*, 77.

PASTERS ON OFFICIAL BALLOT.

A voter can insert in the space left at the end of the list of candidates on the official ballot the name of the candidate for whom he would vote, and making the X mark in the space to the right of the name so pasted, and the ballot should be counted for such candidate. *Opinion of Attorney-General*, 49.

For mistake in pasting ballot,

See MISTAKE.

PLEADING.

A declaration alleged that an election was to be held on November 6, 1833; that the plaintiff's name was on the register of voters and he had a right to vote at such election; that on November 3 the defendants, the selectmen of the town, although they had sufficient evidence furnished them of his qualifications as a voter, wrongfully removed his name from the list, by which he lost the privilege of voting. Held that, although the declaration also adds that the defendants wrongfully refused to receive his ballot (on which part of the declaration the plaintiff could not rely, as he did not tender a ballot), the declaration set forth a good cause of action for the erasure of plaintiff's name from the register of voters. *Larned v. Wheeler*, 60.

QUALIFICATIONS OF VOTERS.

See DOMICIL.

RECOUNT OF VOTES BY SENATE OR HOUSE

The votes cast for senator in a town in the district will not be recounted by the Senate unless evidence is produced of such a nature as to satisfy the Senate that there was probable cause to believe that a mistake had been made in ascertaining or assuming the result of the vote for senator sufficiently large to change the result of the election. *Peck v. Reed*, 1.

Where the sitting member was declared elected by a plurality of five votes, the mere fact that there was a discrepancy of one vote between the whole number of votes cast for representative in a town of the district and the number of names checked upon the voting list, — and that at the closing of the polls, the register of the patent ballot-box used, owing to some defect in its mechanism, indicated nearly one hundred more votes as cast than were in fact cast at the election, — is not sufficient reason for granting a recount of the votes of such town by the House of Representatives. *Haskill v. Hopkins*, 16.

RECOUNT OF VOTES BY SENATE OR HOUSE—*Concluded.*

After votes have been recounted by the aldermen of a city, as provided by law, the votes will not be recounted by the Senate, in an election controversy, unless there are substantial and strong reasons for believing that there was fraud or error in the recount of the aldermen which would change the result. *Howard v. Neill*, 19.

The mere fact that in recounting votes all the aldermen did not recount all the votes, but were divided into sub-committees, all the members of each sub-committee counting all the votes assigned to such sub-committee, — and that there was some difference between the first count by the election officers and the recount by the aldermen, — will not justify a recount by the Senate. *Id.*

Votes will not be recounted by the Senate unless the petitioner shows probable cause for believing that such a mistake or fraud was committed in ascertaining the result of the vote as would change the result of the election. The burden of proof is upon the petitioner. *Southwick v. Hart*, 26.

The statutes, section 1 of chapter 262 of the Acts of 1886 (now section 104 of chapter 423 of the Acts of 1890), providing for a recount of ballots cast in a town, and giving the selectmen authority, upon proper petition, to examine the ballots and “determine the questions raised,” do not make the selectmen a judicial tribunal whose decision is final. If the petitioner shows substantial and strong reasons for believing that there was fraud or error in the recount by the selectmen sufficient to change the result, he is then entitled to a recount by the House. *Shepard v. Sears*, 30.

If the selectmen, by reason of a mistaken construction of the law, improperly reject or admit ballots upon the recount by them, and the result is thereby affected, the petitioner is entitled to a recount by the House. *Id.*

The right of recounting votes will be exercised only upon satisfactory preliminary proof of such substantial facts or well-grounded causes of suspicion as would induce strong conviction that fraud or mistake, prejudicial to the contestant, might appear upon such examination; and in the absence of such preliminary proof the returns of city and town officials should stand as correct. *Jones v. Loring*, 36.

The Acts of 1888, chapter 436, and of 1889, chapter 413 (the Australian Ballot Act), make no change in the rule governing the recount of votes by the House. The marks made by voters upon the official ballots will not be recounted by the House unless the petitioner show such substantial facts or well-grounded causes of suspicion as would induce strong conviction that illegal or fatally defective votes had been cast and counted, and that their number was sufficient to change the result. *Id.*

The House of Representatives will not recount votes for representative merely because the member is returned as elected by a majority of one vote, and the contestant claims that the count was incorrect. *Bird v. Rideout*, 45.

Where the recount petitioned for to the aldermen is invalid, and the evidence tends to show that at such recount marks upon certain ballots were improperly counted as votes, the House will recount the votes. *Haigh v. McNally*, 57.

For legality of recount by aldermen,

See ALDERMEN.

REGISTRATION OF VOTERS.

The provisions of section 21 of chapter 298 of the Acts of 1884 — that after the lists of qualified voters are printed and posted, as required by law, no name shall be added thereto, unless the applicant for registration appears in person before the registrars or assistant registrars and proves his claim to be registered — were *held* by a majority (five) of the committee to be *mandatory*, so that persons whose names were added to the list after it was so printed and posted, without their personal application, were not entitled to vote at the ensuing election, and their votes, even if received without objection, must be rejected as illegal upon an election contest. A minority of the committee (two) *held* that the law was merely *directory*, and that the votes of such persons so registered, when cast in good faith and received without objection, should be counted. *Manafield v. Hitchings*, 3.

For constitutionality of statute postponing registration of newly naturalized citizens,

See NATURALIZATION.

For improper erasure of name from voting list,

See ACTION AGAINST SELECTMEN.

REPRESENTATIVES.

For apportionment of,

See APPORTIONMENT.

RESIDENCE.

See DOMICIL.

RETURNS OF VOTES.

The board of examiners of election returns ordered a town clerk, under the statute of 1885, chapter 229, section 1, to transmit a new return of the votes cast in the town for a county commissioner in place of the return first made by him, which did not show where or when the election was held, or that the record was of a meeting of the inhabitants of the town, unless inferrible from the facts that it purported to be certified by persons described as "selectmen of the town," naming it, and was attested by a person described as "clerk of said town." The new return, besides having the defects of the first return, was not certified by any persons purporting to be selectmen, and the name of the town nowhere appeared in it. A petition for a writ of mandamus was filed to compel the board to receive the returns and count the votes with those returned from the other towns in the county, and to declare the election of the petitioner as county commissioner, and to notify him thereof. *Held*, that the board was not bound to receive or treat either return as valid; and that the petition was properly dismissed. *Luce v. Board of Examiners*, 90.

SELECTMEN.

If the selectmen, by reason of a mistaken construction of the law, improperly reject or admit ballots upon the recount made by them, and the result is thereby affected, the petitioner is entitled to a recount by the House. *Shepard v. Sears*, 30.

For action against,

See ACTION AGAINST SELECTMEN.

For finality of recount of votes by,

See RECOUNT OF VOTES.

SENATORS.

For apportionment of,
See APPORTIONMENT.

VOTE.

For effect of illegal voting,
See ELECTION.

For mistakes in marking ballot,
See MISTAKE.

The right to vote is fixed by the Constitution,
See CONSTITUTION.

WARD BOUNDARIES.

See APPORTIONMENT.

N U M B E R

O F

ASSESSED POLLS, REGISTERED VOTERS

A N D

PERSONS WHO VOTED IN EACH VOTING PRECINCT

A T T H E

STATE, CITY AND TOWN ELECTIONS

I N T H E Y E A R

1 8 9 3 ,

**WITH A STATEMENT OF OTHER MATTERS RELATING
TO ELECTIONS.**

COMPILED BY
WILLIAM M. OLIN,
SECRETARY OF THE COMMONWEALTH.

BOSTON :
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

Commonwealth of Massachusetts.

OFFICE OF THE SECRETARY, BOSTON, Jan. 11, 1894.

To the Honorable Senate and the House of Representatives.

I have the honor to submit herewith, in compliance with section 204 of the Election Act of 1893, a report of the number of assessed polls, the number of registered male and female voters at the last annual state election and city and town elections, and the total number of persons, both male and female, who voted at each such election in every city and town and in every voting precinct of each city and town.

In further compliance with the law above quoted I submit the following : —

It seems to me desirable and just that nominations to fill vacancies caused by the death, withdrawal or ineligibility of candidates, as provided in sections 80 and 87 of the Election Act of 1893, should be subject to objections in like manner as original nominations whenever the time is sufficient. I suggest the enactment of a law to this effect, and also a provision that nominations to fill such vacancies shall be made without unnecessary delay, in order to prevent postponement of such nominations with the purpose of cutting off opportunity to file objections. I suggest further that all certificates of such nominations should be accompanied by the written acceptance of the candidates nominated.

It was intended in the construction of the law constituting the Ballot Law Commission and defining its duties, to empower the commission to compel the attendance of witnesses before them upon any matter within their jurisdiction. Some doubt having arisen as to whether the statute does give such power to the commission, I suggest such an amendment of section 93 of the Election Act as will put the matter beyond question.

I suggest, also, for the consideration of the General Court, the matter of changing section 93 of the Election Act so as to provide that witnesses shall be summoned in the same manner, be paid the same fees and be subject to the same penalties for default as witnesses summoned before the General Court.

I beg leave to renew the recommendation contained in my report of last year, that the secretary of the Commonwealth shall not be required to receive and file nomination papers containing more names than the registrars of voters are required by law to certify; that is to say, the number of persons required to make the nomination, with one fifth of such number added thereto.

Desiring to avail themselves of any improvements in the construction of ballot boxes which might have been designed since the preceding election, the ballot box commissioners, consisting of the secretary of the Commonwealth, the treasurer and the auditor, invited all inventors and manufacturers of ballot boxes to submit their boxes to an examination, which was held in the State House in September last. After a careful examination the commissioners were unanimously of the opinion that none of the boxes presented were superior to the pattern adopted last year, and, therefore, no change was made. Nevertheless, as I remarked in my report of last year, the commissioners do not regard the question as settled, but will continue to receive and examine all inventions of the kind until a perfectly satisfactory box shall have been obtained.

Very respectfully,

WILLIAM M. OLIN,
Secretary.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO VOTED AT ELECTIONS.

Apparent inconsistencies in the report may be accounted for, in part, as follows : —

First. The number of assessed male polls includes aliens and other persons who are not qualified to become registered voters.

Second. The number of registered male voters includes persons who are exempt from taxation and therefore are not included in the number of assessed male polls.

Third. Many names of voters on the list at the State election are, by reason of change of residence, erased from the list of voters at municipal elections.

DATES OF ELECTIONS.

Town elections: February, March or April.

State election: Tuesday after the first Monday in November.

City elections: Boston, Tuesday next after second Monday in December; Brockton, Tuesday next after first Monday in December; Cambridge, Tuesday next after second Monday in December; Chelsea, Tuesday next after first Monday in December; Chicopee, first Tuesday in December; Everett, second Tuesday in December; Fall River, Tuesday next after first Monday in December; Fitchburg, first Tuesday in December; Gloucester, Tuesday next after first Monday in December; Haverhill, Tuesday next after first Monday in December; Holyoke, first Tuesday in December; Lawrence, Tuesday next after first Monday in December; Lowell, second Tuesday in December; Lynn, Tuesday next after second Monday in December; Malden, first Tuesday in December; Marlborough, first Tues-

day in December; Medford, second Tuesday in December; New Bedford, first Tuesday in December; Newburyport, Tuesday next after second Monday in December; Newton, first Tuesday in December; Northampton, first Tuesday in December; Pittsfield, first Tuesday in December; Quincy, first Tuesday in December; Salem, second Tuesday in December; Somerville, Tuesday next after first Monday in December; Springfield, Tuesday next after first Monday in December; Taunton, Tuesday next after first Monday in December; Waltham, first Tuesday in December; Woburn, first Tuesday in December; Worcester, Tuesday next after second Monday in December.

NUMBER OF POLLING PLACES, 1893.

Town elections: 322 towns, 1 each.

State election: 913, viz.: Boston, 205; 29 cities, 322; 40 towns, divided into voting precincts, 104; 282 towns, not divided into voting precincts, 1 each.

City elections: 30 cities, 527.

TOWN BALLOT ACT.

The provisions of chapter 386, Acts of 1890, now included in the Election Act of 1893, were accepted by 8 towns in 1893, making 138 towns where the method of nominating and electing town officers is similar to that for State officers.

ASSESSED POLLS, REGISTERED VOTERS, ETC.

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| BOSTON. | | | | | | | | | |
| Ward 1, Pt. 1, | 710 | 409 | 336 | Dec. 12, | 714 | 416 | 7 | 334 | 7 |
| " 1, " 2, | 577 | 371 | 324 | 12, | 580 | 377 | 108 | 318 | 81 |
| " 1, " 3, | 489 | 358 | 301 | 12, | 490 | 357 | 126 | 287 | 101 |
| " 1, " 4, | 634 | 443 | 368 | 12, | 636 | 449 | 135 | 353 | 108 |
| " 1, " 5, | 578 | 410 | 345 | 12, | 579 | 414 | 124 | 330 | 105 |
| " 1, " 6, | 685 | 470 | 400 | 12, | 687 | 477 | 128 | 397 | 107 |
| " 1, " 7, | 893 | 512 | 424 | 12, | 900 | 535 | 34 | 423 | 28 |
| " 1, " 8, | 756 | 488 | 389 | 12, | 764 | 499 | 35 | 411 | 29 |
| " 1, " 9, | 900 | 582 | 468 | 12, | 907 | 599 | 41 | 460 | 33 |
| Ward, | 6,222 | 4,048 | 3,355 | - | 6,257 | 4,123 | 738 | 3,313 | 599 |
| Ward 2, Pt. 1, | 745 | 448 | 369 | Dec. 12, | 746 | 453 | 21 | 364 | 19 |
| " 2, " 2, | 640 | 361 | 271 | 12, | 642 | 369 | 28 | 268 | 24 |
| " 2, " 3, | 754 | 469 | 383 | 12, | 756 | 474 | 40 | 367 | 32 |
| " 2, " 4, | 686 | 436 | 373 | 12, | 687 | 438 | 24 | 363 | 24 |
| " 2, " 5, | 667 | 361 | 282 | 12, | 669 | 370 | 18 | 298 | 16 |
| " 2, " 6, | 657 | 399 | 327 | 12, | 659 | 405 | 17 | 321 | 14 |
| " 2, " 7, | 968 | 560 | 431 | 12, | 972 | 574 | 29 | 436 | 28 |
| Ward, | 5,117 | 3,034 | 2,436 | - | 5,131 | 3,083 | 177 | 2,417 | 157 |
| Ward 3, Pt. 1, | 620 | 478 | 410 | Dec. 12, | 620 | 481 | 161 | 365 | 136 |
| " 3, " 2, | 715 | 553 | 463 | 12, | 716 | 555 | 81 | 411 | 73 |
| " 3, " 3, | 601 | 459 | 399 | 12, | 601 | 460 | 90 | 364 | 79 |
| " 3, " 4, | 761 | 530 | 443 | 12, | 763 | 532 | 24 | 405 | 23 |
| " 3, " 5, | 730 | 527 | 454 | 12, | 731 | 533 | 26 | 422 | 25 |
| " 3, " 6, | 677 | 467 | 408 | 12, | 678 | 469 | 5 | 389 | 5 |
| Ward, | 4,104 | 3,014 | 2,577 | - | 4,109 | 3,030 | 337 | 2,356 | 341 |
| Ward 4, Pt. 1, | 628 | 472 | 408 | Dec. 12, | 629 | 472 | 52 | 373 | 46 |
| " 4, " 2, | 662 | 471 | 384 | 12, | 666 | 474 | 109 | 359 | 99 |
| " 4, " 3, | 680 | 513 | 441 | 12, | 682 | 515 | 102 | 409 | 84 |
| " 4, " 4, | 704 | 484 | 413 | 12, | 704 | 483 | 71 | 316 | 59 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| Boston—Con. | | | | | | | | | |
| Ward 4, Pt. 5, | 756 | 481 | 423 | Dec. 12, | 759 | 487 | 20 | 399 | 19 |
| " 4, " 6, | 695 | 378 | 293 | 12, | 698 | 383 | 39 | 272 | 34 |
| Ward, | 4,125 | 2,799 | 2,357 | - | 4,138 | 2,814 | 398 | 2,128 | 841 |
| Ward 5, Pt. 1, | 630 | 446 | 373 | Dec. 12, | 634 | 454 | 96 | 355 | 88 |
| " 5, " 2, | 644 | 486 | 421 | 12, | 645 | 494 | 75 | 402 | 61 |
| " 5, " 3, | 792 | 462 | 398 | 12, | 795 | 471 | 11 | 384 | 8 |
| " 5, " 4, | 532 | 328 | 286 | 12, | 533 | 330 | 40 | 261 | 37 |
| " 5, " 5, | 924 | 556 | 458 | 12, | 926 | 563 | 33 | 424 | 31 |
| " 5, " 6, | 759 | 427 | 357 | 12, | 761 | 434 | 43 | 325 | 38 |
| Ward, | 4,281 | 2,705 | 2,298 | - | 4,294 | 2,746 | 298 | 2,151 | 263 |
| Ward 6, Pt. 1, | 829 | 453 | 378 | Dec. 12, | 834 | 462 | 7 | 386 | 6 |
| " 6, " 2, | 1,008 | 451 | 361 | 12, | 1,015 | 462 | 10 | 376 | 10 |
| " 6, " 3, | 843 | 418 | 347 | 12, | 847 | 424 | 4 | 356 | 4 |
| " 6, " 4, | 880 | 433 | 349 | 12, | 887 | 439 | 4 | 370 | 3 |
| " 6, " 5, | 1,024 | 398 | 291 | 12, | 1,029 | 405 | 12 | 300 | 12 |
| Ward, | 4,584 | 2,153 | 1,726 | - | 4,612 | 2,192 | 37 | 1,788 | 35 |
| Ward 7, Pt. 1, | 531 | 348 | 300 | Dec. 12, | 532 | 349 | - | 275 | - |
| " 7, " 2, | 604 | 287 | 249 | 12, | 608 | 293 | - | 248 | - |
| " 7, " 3, | 722 | 259 | 217 | 12, | 731 | 275 | 2 | 214 | 2 |
| " 7, " 4, | 690 | 339 | 281 | 12, | 695 | 346 | 4 | 259 | 4 |
| " 7, " 5, | 1,133 | 385 | 318 | 12, | 1,138 | 390 | 15 | 284 | 15 |
| Ward, | 3,680 | 1,618 | 1,365 | - | 3,704 | 1,653 | 21 | 1,280 | 21 |
| Ward 8, Pt. 1, | 758 | 334 | 259 | Dec. 12, | 761 | 343 | 31 | 238 | 24 |
| " 8, " 2, | 602 | 322 | 275 | 12, | 609 | 330 | 34 | 261 | 32 |
| " 8, " 3, | 730 | 390 | 332 | 12, | 735 | 395 | 10 | 323 | 9 |
| " 8, " 4, | 850 | 375 | 314 | 12, | 857 | 385 | 4 | 312 | 4 |
| " 8, " 5, | 1,044 | 437 | 369 | 12, | 1,050 | 444 | 14 | 356 | 13 |
| " 8, " 6, | 799 | 402 | 362 | 12, | 802 | 413 | - | 364 | - |
| Ward, | 4,783 | 2,260 | 1,911 | - | 4,814 | 2,310 | 93 | 1,854 | 82 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| BOSTON — Con. | | | | | | | | | |
| Ward 9, Pt. 1, | 733 | 484 | 394 | Dec. 12, | 738 | 494 | 46 | 363 | 38 |
| “ 9, “ 2, | 860 | 490 | 389 | 12, | 870 | 506 | 103 | 359 | 93 |
| “ 9, “ 3, | 805 | 460 | 340 | 12, | 813 | 466 | 38 | 333 | 33 |
| “ 9, “ 4, | 848 | 519 | 411 | 12, | 854 | 524 | 141 | 374 | 119 |
| “ 9, “ 5, | 797 | 442 | 359 | 12, | 803 | 449 | 13 | 226 | 12 |
| Ward, . | 4,043 | 2,385 | 1,893 | - | 4,078 | 2,439 | 341 | 1,665 | 295 |
| Ward 10, Pt. 1, | 879 | 465 | 379 | Dec. 12, | 885 | 465 | 62 | 348 | 48 |
| “ 10, “ 2, | 1,166 | 484 | 408 | 12, | 1,164 | 501 | 38 | 373 | 35 |
| “ 10, “ 3, | 499 | 341 | 288 | 12, | 504 | 348 | 14 | 264 | 12 |
| “ 10, “ 4, | 786 | 437 | 363 | 12, | 792 | 447 | 10 | 331 | 9 |
| Ward, . | 3,320 | 1,717 | 1,438 | - | 3,345 | 1,761 | 124 | 1,316 | 104 |
| Ward 11, Pt. 1, | 501 | 379 | 321 | Dec. 12, | 502 | 378 | 5 | 297 | 5 |
| “ 11, “ 2, | 414 | 350 | 285 | 12, | 415 | 350 | 20 | 266 | 13 |
| “ 11, “ 3, | 539 | 433 | 359 | 12, | 543 | 436 | 25 | 331 | 15 |
| “ 11, “ 4, | 467 | 382 | 321 | 12, | 469 | 384 | 42 | 277 | 32 |
| “ 11, “ 5, | 1,115 | 490 | 385 | 12, | 1,121 | 498 | 84 | 374 | 62 |
| “ 11, “ 6, | 1,111 | 533 | 421 | 12, | 1,113 | 539 | 46 | 384 | 33 |
| “ 11, “ 7, | 572 | 341 | 263 | 12, | 576 | 349 | 56 | 245 | 51 |
| “ 11, “ 8, | 791 | 492 | 409 | 12, | 798 | 504 | 119 | 391 | 89 |
| “ 11, “ 9, | 878 | 579 | 473 | 12, | 885 | 590 | 78 | 403 | 64 |
| “ 11, “ 10, | 711 | 549 | 453 | 12, | 713 | 554 | 86 | 403 | 70 |
| “ 11, “ 11, | 901 | 593 | 486 | 12, | 911 | 605 | 53 | 447 | 45 |
| Ward, . | 8,000 | 5,121 | 4,176 | - | 8,046 | 5,167 | 614 | 3,818 | 479 |
| Ward 12, Pt. 1, | 518 | 306 | 280 | Dec. 12, | 523 | 315 | - | 270 | - |
| “ 12, “ 2, | 607 | 375 | 308 | 12, | 614 | 384 | 6 | 308 | 6 |
| “ 12, “ 3, | 601 | 354 | 294 | 12, | 609 | 368 | 10 | 285 | 7 |
| “ 12, “ 4, | 1,066 | 524 | 423 | 12, | 1,064 | 544 | 20 | 416 | 17 |
| “ 12, “ 5, | 814 | 388 | 310 | 12, | 826 | 404 | 38 | 295 | 32 |
| Ward, . | 3,596 | 1,947 | 1,615 | - | 3,636 | 2,015 | 74 | 1,574 | 62 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| Boston—Con. | | | | | | | | | |
| Ward 13, Pt. 1, | 833 | 313 | 253 | Dec. 12, | 837 | 320 | - | 242 | - |
| " 13, " 2, | 947 | 331 | 252 | 12, | 948 | 334 | - | 255 | - |
| " 13, " 3, | 818 | 383 | 315 | 12, | 823 | 390 | 1 | 307 | 1 |
| " 13, " 4, | 807 | 429 | 364 | 12, | 809 | 432 | 7 | 358 | 6 |
| " 13, " 5, | 668 | 375 | 332 | 12, | 670 | 378 | 1 | 304 | 1 |
| " 13, " 6, | 773 | 408 | 388 | 12, | 775 | 411 | 1 | 341 | 1 |
| " 13, " 7, | 743 | 386 | 318 | 12, | 747 | 391 | 22 | 312 | 18 |
| " 13, " 8, | 667 | 313 | 257 | 12, | 668 | 315 | 13 | 247 | 11 |
| " 13, " 9, | 758 | 358 | 304 | 12, | 761 | 361 | - | 296 | - |
| Ward, | 7,014 | 3,296 | 2,733 | - | 7,038 | 3,332 | 45 | 2,667 | 36 |
| Ward 14, Pt. 1, | 676 | 386 | 314 | Dec. 12, | 677 | 388 | 37 | 320 | 34 |
| " 14, " 2, | 804 | 445 | 379 | 12, | 808 | 455 | 40 | 387 | 37 |
| " 14, " 3, | 754 | 423 | 369 | 12, | 755 | 424 | 19 | 347 | 19 |
| " 14, " 4, | 618 | 399 | 319 | 12, | 618 | 405 | 73 | 317 | 60 |
| " 14, " 5, | 758 | 439 | 352 | 12, | 762 | 452 | 51 | 340 | 42 |
| " 14, " 6, | 691 | 423 | 320 | 12, | 694 | 431 | 83 | 336 | 74 |
| " 14, " 7, | 646 | 416 | 332 | 12, | 651 | 431 | 135 | 333 | 119 |
| " 14, " 8, | 679 | 469 | 398 | 12, | 679 | 475 | 132 | 336 | 115 |
| " 14, " 9, | 678 | 429 | 346 | 12, | 681 | 437 | 45 | 351 | 39 |
| " 14, " 10, | 546 | 382 | 320 | 12, | 547 | 384 | 66 | 315 | 54 |
| " 14, " 11, | 578 | 393 | 322 | 12, | 580 | 400 | 94 | 311 | 82 |
| " 14, " 12, | 560 | 391 | 326 | 12, | 561 | 401 | 100 | 326 | 86 |
| Ward, | 7,988 | 4,995 | 4,087 | - | 8,013 | 5,083 | 875 | 4,069 | 761 |
| Ward 15, Pt. 1, | 648 | 358 | 298 | Dec. 12, | 649 | 361 | 1 | 296 | 1 |
| " 15, " 2, | 571 | 384 | 342 | 12, | 571 | 383 | 16 | 315 | 14 |
| " 15, " 3, | 657 | 422 | 350 | 12, | 660 | 431 | 76 | 334 | 66 |
| " 15, " 4, | 536 | 369 | 314 | 12, | 539 | 376 | 98 | 300 | 88 |
| " 15, " 5, | 619 | 464 | 391 | 12, | 620 | 466 | 96 | 392 | 84 |
| " 15, " 6, | 779 | 489 | 417 | 12, | 782 | 496 | 50 | 391 | 41 |
| " 15, " 7, | 607 | 350 | 284 | 12, | 608 | 353 | 36 | 268 | 29 |
| " 15, " 8, | 947 | 579 | 495 | 12, | 952 | 588 | 89 | 478 | 77 |
| Ward, | 5,364 | 3,415 | 2,891 | - | 5,381 | 3,454 | 462 | 2,774 | 400 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| BOSTON — Con. | | | | | | | | | |
| Ward 16, Pt. 1, | 1,018 | 423 | 352 | Dec. 12, | 1,024 | 431 | 16 | 340 | 14 |
| “ 16, “ 2, | 1,249 | 443 | 331 | 12, | 1,258 | 467 | 19 | 318 | 14 |
| “ 16, “ 3, | 898 | 373 | 292 | 12, | 902 | 388 | 11 | 307 | 9 |
| “ 16, “ 4, | 1,007 | 450 | 389 | 12, | 1,016 | 464 | 46 | 414 | 41 |
| “ 16, “ 5, | 858 | 356 | 317 | 12, | 866 | 365 | 6 | 302 | 6 |
| “ 16, “ 6, | 892 | 433 | 371 | 12, | 897 | 443 | 3 | 375 | 2 |
| Ward, . | 5,922 | 2,478 | 2,052 | - | 5,963 | 2,558 | 101 | 2,056 | 86 |
| Ward 17, Pt. 1, | 680 | 427 | 361 | Dec. 12, | 684 | 436 | 115 | 339 | 96 |
| “ 17, “ 2, | 573 | 413 | 346 | 12, | 580 | 422 | 97 | 333 | 86 |
| “ 17, “ 3, | 625 | 391 | 332 | 12, | 631 | 409 | 99 | 324 | 89 |
| “ 17, “ 4, | 595 | 364 | 320 | 12, | 600 | 377 | 77 | 293 | 62 |
| “ 17, “ 5, | 729 | 446 | 385 | 12, | 730 | 451 | 28 | 318 | 26 |
| “ 17, “ 6, | 766 | 482 | 416 | 12, | 768 | 485 | 15 | 400 | 13 |
| “ 17, “ 7, | 760 | 394 | 305 | 12, | 769 | 420 | 17 | 317 | 16 |
| “ 17, “ 8, | 503 | 353 | 306 | 12, | 503 | 354 | 8 | 292 | 7 |
| Ward, . | 5,231 | 3,270 | 2,771 | - | 5,270 | 3,358 | 456 | 2,616 | 895 |
| Ward 18, Pt. 1, | 533 | 396 | 333 | Dec. 12, | 537 | 396 | 71 | 280 | 62 |
| “ 18, “ 2, | 652 | 483 | 405 | 12, | 658 | 489 | 96 | 364 | 77 |
| “ 18, “ 3, | 716 | 467 | 380 | 12, | 720 | 475 | 107 | 350 | 93 |
| “ 18, “ 4, | 598 | 399 | 338 | 12, | 600 | 406 | 95 | 295 | 86 |
| “ 18, “ 5, | 709 | 415 | 336 | 12, | 713 | 426 | 67 | 319 | 61 |
| “ 18, “ 6, | 736 | 412 | 333 | 12, | 744 | 425 | 41 | 328 | 37 |
| “ 18, “ 7, | 678 | 418 | 357 | 12, | 682 | 422 | 81 | 346 | 30 |
| Ward, . | 4,622 | 2,990 | 2,482 | - | 4,664 | 3,039 | 508 | 2,292 | 446 |
| Ward 19, Pt. 1, | 929 | 475 | 390 | Dec. 12, | 934 | 485 | 26 | 406 | 24 |
| “ 19, “ 2, | 702 | 366 | 290 | 12, | 704 | 370 | 14 | 274 | 13 |
| “ 19, “ 3, | 901 | 411 | 316 | 12, | 905 | 419 | 25 | 310 | 23 |
| “ 19, “ 4, | 802 | 369 | 288 | 12, | 807 | 381 | 35 | 286 | 28 |
| “ 19, “ 5, | 973 | 456 | 359 | 12, | 981 | 474 | 56 | 360 | 49 |
| “ 19, “ 6, | 961 | 468 | 364 | 12, | 967 | 486 | 66 | 347 | 64 |
| “ 19, “ 7, | 762 | 405 | 343 | 12, | 771 | 426 | 45 | 344 | 43 |
| “ 19, “ 8, | 806 | 497 | 412 | 12, | 815 | 511 | 75 | 406 | 67 |
| “ 19, “ 9, | 710 | 379 | 305 | 12, | 711 | 382 | 15 | 302 | 14 |
| Ward, . | 7,546 | 3,826 | 3,076 | - | 7,595 | 3,934 | 857 | 3,035 | 325 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| Boston—Con. | | | | | | | | | |
| Ward 20, Pt. 1, | 1,001 | 474 | 392 | Dec. 12, | 1,003 | 484 | 22 | 395 | 22 |
| " 20, " 2, | 621 | 397 | 327 | 12, | 622 | 399 | 18 | 340 | 17 |
| " 20, " 3, | 589 | 363 | 307 | 12, | 591 | 371 | 66 | 307 | 60 |
| " 20, " 4, | 512 | 394 | 341 | 12, | 516 | 401 | 120 | 328 | 107 |
| " 20, " 5, | 660 | 395 | 338 | 12, | 662 | 404 | 6 | 352 | 2 |
| " 20, " 6, | 742 | 408 | 346 | 12, | 745 | 421 | 12 | 351 | 10 |
| " 20, " 7, | 558 | 429 | 368 | 12, | 559 | 434 | 73 | 362 | 63 |
| " 20, " 8, | 665 | 438 | 402 | 12, | 656 | 440 | 48 | 365 | 44 |
| " 20, " 9, | 453 | 267 | 223 | 12, | 458 | 276 | 16 | 235 | 15 |
| " 20, " 10, | 626 | 451 | 377 | 12, | 631 | 457 | 97 | 347 | 86 |
| " 20, " 11, | 509 | 413 | 352 | 12, | 511 | 412 | 75 | 320 | 67 |
| " 20, " 12, | 755 | 571 | 489 | 12, | 760 | 582 | 98 | 440 | 88 |
| " 20, " 13, | 667 | 497 | 424 | 12, | 672 | 505 | 38 | 417 | 31 |
| Ward, | 8,348 | 5,497 | 4,686 | - | 8,386 | 5,586 | 689 | 4,559 | 612 |
| Ward 21, Pt. 1, | 510 | 334 | 272 | Dec. 12, | 512 | 336 | 69 | 256 | 64 |
| " 21, " 2, | 741 | 483 | 403 | 12, | 742 | 485 | 116 | 387 | 99 |
| " 21, " 3, | 498 | 381 | 318 | 12, | 500 | 383 | 76 | 290 | 66 |
| " 21, " 4, | 609 | 387 | 324 | 12, | 615 | 396 | 55 | 319 | 50 |
| " 21, " 5, | 648 | 471 | 402 | 12, | 650 | 477 | 37 | 393 | 34 |
| " 21, " 6, | 783 | 555 | 466 | 12, | 787 | 560 | 70 | 446 | 57 |
| " 21, " 7, | 542 | 404 | 349 | 12, | 544 | 410 | 101 | 331 | 98 |
| " 21, " 8, | 445 | 383 | 326 | 12, | 446 | 386 | 118 | 286 | 102 |
| " 21, " 9, | 641 | 427 | 363 | 12, | 643 | 434 | 102 | 341 | 97 |
| " 21, " 10, | 778 | 571 | 472 | 12, | 781 | 579 | 102 | 447 | 82 |
| " 21, " 11, | 654 | 509 | 439 | 12, | 655 | 513 | 88 | 392 | 74 |
| " 21, " 12, | 837 | 573 | 478 | 12, | 839 | 575 | 114 | 458 | 103 |
| Ward, | 7,686 | 5,478 | 4,607 | - | 7,714 | 5,534 | 1,048 | 4,346 | 926 |
| Ward 22, Pt. 1, | 844 | 556 | 441 | Dec. 12, | 846 | 565 | 28 | 378 | 26 |
| " 22, " 2, | 654 | 330 | 283 | 12, | 657 | 339 | 38 | 278 | 36 |
| " 22, " 3, | 614 | 296 | 244 | 12, | 617 | 304 | 23 | 244 | 19 |
| " 22, " 4, | 588 | 325 | 281 | 12, | 591 | 330 | 1 | 287 | 1 |
| " 22, " 5, | 567 | 333 | 285 | 12, | 568 | 340 | 33 | 277 | 27 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1883. | | | Date of Elec- tion. | CITY ELECTIONS, DECEMBER, 1885. | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------|---------------------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| BOSTON — Con. | | | | | | | | | |
| Ward 22, Pt. 6, | 635 | 404 | 348 | Dec. 12, | 637 | 409 | 8 | 247 | 6 |
| " 22, " 7, | 658 | 358 | 308 | 12, | 661 | 368 | 21 | 306 | 21 |
| " 22, " 8, | 553 | 386 | 321 | 12, | 559 | 393 | 41 | 330 | 22 |
| " 22, " 9, | 549 | 301 | 253 | 12, | 550 | 309 | 19 | 259 | 16 |
| " 22, " 10, | 809 | 492 | 410 | 12, | 811 | 501 | 42 | 420 | 37 |
| Ward, . | 6,471 | 3,781 | 3,174 | - | 6,497 | 3,858 | 254 | 3,026 | 211 |
| Ward 23, Pt. 1, | 789 | 453 | 375 | Dec. 12, | 798 | 469 | 48 | 374 | 41 |
| " 23, " 2, | 728 | 460 | 383 | 12, | 736 | 468 | 64 | 392 | 62 |
| " 23, " 3, | 643 | 475 | 402 | 12, | 654 | 485 | 69 | 391 | 63 |
| " 23, " 4, | 559 | 363 | 308 | 12, | 562 | 373 | 57 | 312 | 47 |
| " 23, " 5, | 647 | 486 | 391 | 12, | 650 | 491 | 73 | 378 | 61 |
| " 23, " 6, | 384 | 295 | 250 | 12, | 388 | 296 | 48 | 233 | 40 |
| " 23, " 7, | 503 | 364 | 309 | 12, | 510 | 399 | 62 | 302 | 57 |
| " 23, " 8, | 549 | 391 | 345 | 12, | 564 | 411 | 5 | 366 | 3 |
| " 23, " 9, | 723 | 505 | 433 | 12, | 730 | 526 | 48 | 438 | 40 |
| " 23, " 10, | 589 | 388 | 303 | 12, | 601 | 407 | 32 | 309 | 30 |
| " 23, " 11, | 661 | 457 | 366 | 12, | 676 | 472 | 55 | 388 | 50 |
| " 23, " 12, | 545 | 367 | 303 | 12, | 546 | 378 | 81 | 289 | 71 |
| " 23, " 13, | 560 | 411 | 354 | 12, | 561 | 418 | 45 | 331 | 41 |
| " 23, " 14, | 284 | 197 | 175 | 12, | 285 | 199 | 6 | 168 | 6 |
| Ward, . | 8,164 | 5,612 | 4,097 | - | 8,261 | 5,762 | 693 | 4,671 | 613 |
| Ward 24, Pt. 1, | 705 | 613 | 422 | Dec. 12, | 708 | 520 | 104 | 416 | 97 |
| " 24, " 2, | 572 | 409 | 331 | 12, | 576 | 425 | 115 | 327 | 101 |
| " 24, " 3, | 568 | 396 | 342 | 12, | 571 | 404 | 69 | 336 | 61 |
| " 24, " 4, | 750 | 495 | 398 | 12, | 755 | 508 | 54 | 393 | 50 |
| " 24, " 5, | 720 | 404 | 337 | 12, | 725 | 417 | 19 | 333 | 16 |
| " 24, " 6, | 443 | 324 | 257 | 12, | 445 | 330 | 61 | 254 | 49 |
| " 24, " 7, | 545 | 352 | 299 | 12, | 545 | 351 | 47 | 280 | 44 |
| " 24, " 8, | 559 | 432 | 364 | 12, | 562 | 435 | 57 | 340 | 50 |
| " 24, " 9, | 494 | 323 | 286 | 12, | 495 | 332 | 54 | 282 | 51 |
| " 24, " 10, | 860 | 644 | 530 | 12, | 861 | 655 | 90 | 500 | 83 |
| " 24, " 11, | 507 | 368 | 310 | 12, | 507 | 368 | 64 | 303 | 45 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|---------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| BOSTON — CON. | | | | | | | | | |
| Ward 24, Pt. 12, | 548 | 379 | 313 | Dec. 12, | 548 | 390 | 43 | 294 | 34 |
| " 24, " 13, | 1,030 | 637 | 545 | 12, | 1,033 | 664 | 121 | 513 | 107 |
| " 24, " 14, | 631 | 475 | 398 | 12, | 633 | 486 | 125 | 375 | 113 |
| " 24, " 15, | 649 | 471 | 387 | 12, | 650 | 479 | 67 | 356 | 50 |
| " 24, " 16, | 543 | 377 | 310 | 12, | 545 | 381 | 45 | 281 | 41 |
| Ward, . | 10,124 | 6,999 | 5,829 | - | 10,159 | 7,145 | 1,135 | 5,583 | 992 |
| Ward 25, Pt. 1, | 877 | 583 | 439 | Dec. 12, | 880 | 540 | 73 | 408 | 68 |
| " 25, " 2, | 716 | 521 | 460 | 12, | 717 | 522 | 91 | 437 | 79 |
| " 25, " 3, | 817 | 524 | 460 | 12, | 820 | 533 | 73 | 427 | 63 |
| " 25, " 4, | 719 | 437 | 384 | 12, | 722 | 443 | 28 | 380 | 27 |
| " 25, " 5, | 627 | 452 | 406 | 12, | 629 | 457 | 41 | 389 | 38 |
| " 25, " 6, | 643 | 452 | 412 | 12, | 644 | 456 | 70 | 390 | 57 |
| Ward, . | 4,399 | 2,919 | 2,561 | - | 4,412 | 2,951 | 376 | 2,431 | 832 |
| City, . | 144,734 | 87,352 | 72,788 | - | 145,507 | 88,947 | 10,296 | 69,765 | 8,915 |
| BROCKTON. | | | | | | | | | |
| Ward 1, Pt. A. | 988 | 670 | 566 | Dec. 5, | 1,010 | 699 | - | 586 | - |
| " 2, " A, | 1,285 | 927 | 788 | 5, | 1,298 | 953 | 3 | 778 | 3 |
| " 3, " A, | 1,806 | 1,215 | 1,023 | 5, | 1,817 | 1,253 | 5 | 968 | 3 |
| " 4, " A, | 1,282 | 794 | 407 | 5, | 1,311 | 830 | 1 | 719 | 1 |
| " 5, " A, | 1,204 | 831 | 690 | 5, | 1,243 | 858 | 4 | 692 | 2 |
| " 6, " A, | 1,398 | 869 | 709 | 5, | 1,411 | 899 | - | 706 | - |
| " 7, " A, | 1,329 | 981 | 855 | 5, | 1,349 | 1,001 | 1 | 823 | - |
| City, . | 9,292 | 6,287 | 5,088 | - | 9,439 | 6,493 | 14 | 5,272 | 9 |
| CAMBRIDGE. | | | | | | | | | |
| Ward 1, Pt. 1, | 626 | 406 | 359 | Dec. 12, | 626 | 408 | 4 | 335 | - |
| " 1, " 2, | 812 | 489 | 396 | 12, | 812 | 491 | 11 | 391 | 6 |
| " 1, " 3, | 1,051 | 544 | 429 | 12, | 1,051 | 543 | 6 | 443 | 3 |
| " 1, " 4, | 527 | 381 | 300 | 12, | 527 | 385 | 8 | 293 | 4 |
| " 1, " 5, | 698 | 507 | 412 | 12, | 700 | 511 | 10 | 389 | 5 |
| " 2, " 1, | 1,303 | 620 | 532 | 12, | 1,304 | 623 | 1 | 532 | 1 |
| " 2, " 2, | 1,185 | 581 | 506 | 12, | 1,185 | 585 | 13 | 472 | 10 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| CAMBRIDGE — Con. | | | | | | | | | |
| Ward 2, Pt. 3, | 1,077 | 461 | 402 | Dec. 12, | 1,080 | 461 | 2 | 372 | 2 |
| " 2, " 4, | 972 | 531 | 442 | 12, | 973 | 537 | 12 | 421 | 1 |
| " 2, " 5, | 706 | 493 | 432 | 12, | 706 | 498 | 20 | 423 | 12 |
| " 2, " 6, | 769 | 422 | 367 | 12, | 769 | 420 | 6 | 350 | 2 |
| " 2, " 7, | 778 | 507 | 439 | 12, | 778 | 510 | 10 | 427 | 7 |
| " 3, " 1, | 1,055 | 483 | 428 | 12, | 1,058 | 489 | 7 | 422 | 5 |
| " 3, " 2, | 804 | 503 | 427 | 12, | 806 | 508 | 14 | 435 | 8 |
| " 3, " 3, | 1,113 | 541 | 456 | 12, | 1,113 | 547 | 8 | 483 | 3 |
| " 3, " 4, | 961 | 439 | 376 | 12, | 962 | 441 | 11 | 388 | 7 |
| " 4, " 1, | 1,037 | 412 | 332 | 12, | 1,037 | 414 | 4 | 326 | 2 |
| " 4, " 2, | 744 | 401 | 330 | 12, | 744 | 404 | 12 | 818 | 7 |
| " 4, " 3, | 633 | 340 | 281 | 12, | 633 | 343 | 8 | 271 | 5 |
| " 4, " 4, | 628 | 413 | 371 | 12, | 629 | 417 | 9 | 339 | - |
| " 4, " 5, | 625 | 373 | 290 | 12, | 625 | 377 | 11 | 309 | 4 |
| " 4, " 6, | 582 | 401 | 341 | 12, | 582 | 405 | 19 | 327 | 8 |
| " 4, " 7, | 677 | 417 | 336 | 12, | 678 | 421 | 12 | 349 | 1 |
| " 4, " 8, | 652 | 353 | 305 | 12, | 652 | 354 | 7 | 294 | 4 |
| " 5, " 1, | 484 | 385 | 338 | 12, | 484 | 385 | 12 | 321 | 7 |
| " 5, " 2, | 737 | 403 | 333 | 12, | 737 | 405 | 6 | 340 | 2 |
| " 5, " 3, | 723 | 428 | 363 | 12, | 723 | 429 | 25 | 351 | 14 |
| " 5, " 4, | 781 | 369 | 819 | 12, | 782 | 371 | 2 | 326 | - |
| City, . . | 22,740 | 12,603 | 10,642 | - | 22,756 | 12,682 | 265 | 10,447 | 130 |
| CHELSEA. | | | | | | | | | |
| Ward 1, Pt. 1, | 1,058 | 639 | 539 | Dec. 5, | 1,118 | 648 | 9 | 516 | 4 |
| " 1, " 2, | 783 | 408 | 336 | 5, | 830 | 421 | 12 | 318 | 8 |
| " 2, " 1, | 1,327 | 748 | 640 | 5, | 1,375 | 764 | 6 | 614 | 2 |
| " 2, " 2, | 793 | 521 | 438 | 5, | 845 | 533 | 14 | 420 | 9 |
| " 3, " 1, | 1,123 | 806 | 682 | 5, | 1,140 | 821 | 23 | 650 | 17 |
| " 3, " 2, | 1,263 | 671 | 570 | 5, | 1,283 | 702 | 16 | 571 | 7 |
| " 4, " 1, | 1,003 | 577 | 467 | 5, | 1,025 | 588 | 12 | 466 | 4 |
| " 4, " 2, | 1,172 | 977 | 840 | 5, | 1,195 | 989 | 21 | 790 | 6 |
| " 4, " 3, | 360 | 278 | 238 | 5, | 361 | 284 | 1 | 230 | - |
| City, . . | 8,882 | 5,625 | 4,760 | - | 9,172 | 5,760 | 114 | 4,575 | 57 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, NOV. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| CHICOPEE. | | | | | | | | | |
| Ward 1, . . . | 563 | 380 | 344 | Dec. 5, | 563 | 412 | - | 380 | - |
| " 2, . . . | 424 | 334 | 297 | 5, | 424 | 348 | - | 320 | - |
| " 3, . . . | 710 | 290 | 256 | 5, | 710 | 311 | - | 282 | - |
| " 4, . . . | 428 | 336 | 289 | 5, | 428 | 326 | - | 279 | - |
| " 5, . . . | 683 | 419 | 373 | 5, | 683 | 439 | - | 373 | - |
| " 6, . . . | 598 | 285 | 236 | 5, | 598 | 285 | - | 257 | - |
| " 7, . . . | 374 | 205 | 181 | 5, | 374 | 215 | - | 195 | - |
| City, . . . | 3,780 | 2,249 | 1,976 | - | 3,780 | 2,336 | - | 2,086 | - |
| EVERETT. | | | | | | | | | |
| Ward 1, . . . | 519 | 478 | 398 | Dec. 12, | 819 | 484 | 20 | 385 | 19 |
| " 2, . . . | 706 | 483 | 382 | 12, | 706 | 493 | 31 | 361 | 24 |
| " 3, . . . | 915 | 554 | 442 | 12, | 915 | 560 | 31 | 419 | 28 |
| " 4, . . . | 647 | 447 | 364 | 12, | 647 | 453 | 30 | 328 | 28 |
| " 5, . . . | 796 | 462 | 395 | 12, | 796 | 473 | 25 | 373 | 21 |
| " 6, . . . | 687 | 483 | 409 | 12, | 687 | 486 | 64 | 400 | 51 |
| City, . . . | 4,570 | 2,907 | 2,390 | - | 4,570 | 2,949 | 201 | 2,266 | 171 |
| FALL RIVER. | | | | | | | | | |
| Ward 1, Pt. A, | 1,482 | 794 | 703 | Dec. 5, | 1,482 | 858 | 136 | 810 | 127 |
| " 1, " B, | 2,137 | 963 | 865 | 5, | 2,137 | 1,084 | 187 | 1,041 | 174 |
| " 2, " A, | 851 | 669 | 595 | 5, | 851 | 703 | 159 | 667 | 150 |
| " 2, " B, | 1,436 | 904 | 828 | 5, | 1,436 | 1,004 | 222 | 955 | 203 |
| " 3, " A, | 1,059 | 588 | 445 | 5, | 1,059 | 590 | 44 | 538 | 40 |
| " 3, " B, | 1,137 | 496 | 422 | 5, | 1,137 | 567 | 29 | 515 | 33 |
| " 4, " A, | 1,291 | 650 | 553 | 5, | 1,291 | 691 | 112 | 641 | 102 |
| " 4, " B, | 1,116 | 645 | 549 | 5, | 1,116 | 708 | 107 | 659 | 94 |
| " 5, " A, | 1,027 | 496 | 437 | 5, | 1,027 | 535 | 62 | 493 | 57 |
| " 5, " B, | 1,233 | 611 | 555 | 5, | 1,233 | 639 | 91 | 595 | 79 |
| " 6, " A, | 1,894 | 702 | 583 | 5, | 1,894 | 760 | 104 | 693 | 92 |
| " 6, " B, | 1,739 | 714 | 626 | 5, | 1,739 | 776 | 120 | 728 | 108 |
| " 7, " A, | 912 | 582 | 536 | 5, | 912 | 603 | 172 | 567 | 158 |
| " 7, " B, | 780 | 547 | 475 | 5, | 780 | 615 | 145 | 553 | 120 |
| " 8, " A, | 596 | 551 | 502 | 5, | 596 | 575 | 244 | 537 | 206 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| FALL RIVER — Con. | | | | | | | | | |
| Ward 8, Pt. B, | 331 | 286 | 254 | Dec. 5, | 331 | 300 | 144 | 263 | 136 |
| “ 9, “ A, | 1,168 | 749 | 653 | 5, | 1,168 | 812 | 156 | 746 | 139 |
| “ 9, “ B, | 1,644 | 701 | 622 | 5, | 1,644 | 765 | 63 | 717 | 49 |
| City, . . | 21,833 | 11,598 | 10,203 | - | 21,833 | 12,586 | 2,297 | 11,718 | 2,967 |
| FITCHBURG. | | | | | | | | | |
| Ward 1, . . | 1,402 | 774 | 663 | Dec. 5, | 1,402 | 781 | 206 | 644 | 187 |
| “ 2, . . | 1,970 | 802 | 715 | 5, | 1,971 | 820 | 36 | 629 | 17 |
| “ 3, . . | 1,195 | 637 | 554 | 5, | 1,195 | 652 | 29 | 520 | 19 |
| “ 4, . . | 793 | 569 | 488 | 5, | 794 | 579 | 58 | 465 | 27 |
| “ 5, . . | 1,351 | 881 | 743 | 5, | 1,351 | 894 | 103 | 657 | 79 |
| “ 6, . . | 1,338 | 752 | 623 | 5, | 1,338 | 750 | 234 | 577 | 182 |
| City, . . | 8,049 | 4,415 | 3,786 | - | 8,051 | 4,476 | 666 | 3,492 | 511 |
| GLOUCESTER. | | | | | | | | | |
| Ward 1, Pt. 1, | 897 | 493 | 305 | Dec. 5, | 905 | 506 | - | 337 | - |
| “ 2, “ 1, | 1,333 | 667 | 408 | 5, | 1,352 | 691 | 1 | 501 | 1 |
| “ 3, “ 1, | 1,697 | 632 | 429 | 5, | 1,733 | 684 | 4 | 509 | - |
| “ 4, “ 1, | 916 | 400 | 284 | 5, | 966 | 422 | 16 | 307 | 1 |
| “ 5, “ 1, | 1,184 | 732 | 533 | 5, | 1,198 | 754 | 2 | 594 | - |
| “ 6, “ 1, | 435 | 311 | 236 | 5, | 460 | 340 | - | 252 | - |
| “ 6, “ 2, | 242 | 211 | 141 | 5, | 242 | 212 | - | 150 | - |
| “ 7, “ 1, | 601 | 334 | 213 | 5, | 606 | 336 | - | 222 | - |
| “ 8, “ 1, | 181 | 139 | 94 | 5, | 182 | 143 | 1 | 115 | - |
| “ 8, “ 2, | 187 | 150 | 94 | 5, | 189 | 156 | 1 | 124 | - |
| City, . . | 7,673 | 4,069 | 2,717 | - | 7,833 | 4,244 | 25 | 3,111 | 2 |
| HAVERHILL. | | | | | | | | | |
| Ward 1, Pt. 1, | 1,208 | 755 | 633 | Dec. 5, | 1,208 | 768 | 16 | 614 | 9 |
| “ 2, “ 1, | 729 | 579 | 507 | 5, | 729 | 596 | 26 | 523 | - |
| “ 3, “ 1, | 1,233 | 722 | 640 | 5, | 1,233 | 757 | 13 | 644 | 8 |
| “ 4, “ 1, | 1,011 | 772 | 659 | 5, | 1,011 | 781 | 8 | 622 | 1 |
| “ 5, “ 1, | 907 | 562 | 487 | 5, | 907 | 573 | 11 | 470 | 6 |
| “ 5, “ 2, | 687 | 531 | 445 | 5, | 687 | 580 | 8 | 418 | 4 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| HAVERHILL — Con. | | | | | | | | | |
| Ward 5, Pt. 3, | 1,231 | 699 | 577 | Dec. 5, | 1,231 | 710 | 9 | 583 | 2 |
| " 6, " 1, | 761 | 640 | 563 | 5, | 761 | 644 | 20 | 543 | 4 |
| " 6, " 2, | 922 | 694 | 600 | 5, | 922 | 702 | 7 | 585 | 2 |
| City, . . | 8,689 | 5,954 | 5,111 | - | 8,689 | 6,061 | 118 | 5,002 | 36 |
| HOLYOKE. | | | | | | | | | |
| Ward 1, Pt. A, | 1,296 | 630 | 601 | Dec. 5, | 1,314 | 694 | - | 600 | - |
| " 2, " A, | 1,491 | 498 | 430 | 5, | 1,501 | 533 | - | 483 | - |
| " 3, " A, | 1,274 | 591 | 465 | 5, | 1,278 | 542 | - | 561 | - |
| " 4, " A, | 970 | 344 | 313 | 5, | 987 | 368 | - | 348 | - |
| " 4, " B, | 766 | 375 | 349 | 5, | 782 | 416 | - | 385 | - |
| " 5, " A, | 450 | 312 | 292 | 5, | 451 | 321 | - | 300 | - |
| " 5, " B, | 420 | 356 | 320 | 5, | 423 | 369 | 1 | 346 | - |
| " 6, " A, | 622 | 440 | 398 | 5, | 627 | 453 | 2 | 404 | 1 |
| " 6, " B, | 1,297 | 733 | 670 | 5, | 1,301 | 765 | 4 | 697 | 1 |
| " 7, " A, | 836 | 657 | 606 | 5, | 839 | 671 | 1 | 591 | - |
| " 7, " B, | 590 | 426 | 391 | 5, | 592 | 435 | 11 | 331 | - |
| City, . . | 10,012 | 5,362 | 4,835 | - | 10,095 | 5,567 | 19 | 5,106 | 2 |
| LAWRENCE. | | | | | | | | | |
| Ward 1, Pt. 1, | 976 | 706 | 646 | Dec. 5, | 976 | 727 | 9 | 673 | 7 |
| " 1, " 2, | 1,174 | 653 | 586 | 5, | 1,179 | 684 | 12 | 632 | 10 |
| " 2, " 3, | 1,196 | 586 | 522 | 5, | 1,196 | 632 | 67 | 563 | 60 |
| " 2, " 4, | 870 | 565 | 522 | 5, | 872 | 585 | 134 | 550 | 119 |
| " 3, " 5, | 1,110 | 560 | 506 | 5, | 1,115 | 585 | - | 532 | - |
| " 3, " 6, | 1,179 | 739 | 665 | 5, | 1,180 | 764 | - | 713 | - |
| " 4, " 7, | 1,556 | 571 | 510 | 5, | 1,558 | 580 | - | 534 | - |
| " 4, " 8, | 1,152 | 804 | 717 | 5, | 1,153 | 829 | - | 752 | - |
| " 5, " 9, | 561 | 451 | 411 | 5, | 561 | 454 | - | 418 | - |
| " 5, " 10, | 899 | 645 | 589 | 5, | 899 | 662 | 4 | 602 | - |
| " 5, " 13, | 935 | 496 | 434 | 5, | 939 | 521 | - | 465 | - |
| " 6, " 11, | 845 | 582 | 515 | 5, | 845 | 606 | - | 543 | - |
| " 6, " 12, | 877 | 642 | 589 | 5, | 879 | 664 | - | 609 | - |
| City, . . | 13,320 | 8,000 | 7,212 | - | 13,342 | 8,293 | 226 | 7,576 | 196 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| LOWELL. | | | | | | | | | |
| Ward 1, Pt. 1, | 1,107 | 496 | 463 | Dec. 12, | 1,122 | 533 | 137 | 485 | 123 |
| “ 1, “ 2, | 1,095 | 536 | 498 | 12, | 1,112 | 560 | 47 | 519 | 42 |
| “ 1, “ 3, | 981 | 562 | 526 | 12, | 999 | 603 | 71 | 553 | 58 |
| “ 2, “ 1, | 640 | 329 | 294 | 12, | 648 | 348 | 59 | 307 | 49 |
| “ 2, “ 2, | 997 | 807 | 754 | 12, | 1,002 | 824 | 135 | 758 | 127 |
| “ 2, “ 3, | 1,911 | 1,109 | 1,018 | 12, | 1,938 | 1,171 | 113 | 1,065 | 106 |
| “ 3, “ 1, | 1,256 | 763 | 733 | 12, | 1,268 | 793 | 95 | 728 | 80 |
| “ 3, “ 2, | 1,608 | 1,081 | 1,016 | 12, | 1,618 | 1,117 | 79 | 1,030 | 72 |
| “ 3, “ 3, | 1,584 | 1,008 | 927 | 12, | 1,592 | 1,042 | 119 | 940 | 108 |
| “ 4, “ 1, | 1,222 | 643 | 589 | 12, | 1,242 | 671 | 47 | 588 | 30 |
| “ 4, “ 2, | 1,479 | 909 | 827 | 12, | 1,488 | 930 | 51 | 836 | 39 |
| “ 4, “ 3, | 1,583 | 1,326 | 1,234 | 12, | 1,590 | 1,357 | 68 | 1,199 | 33 |
| “ 5, “ 1, | 2,264 | 693 | 631 | 12, | 2,271 | 712 | 115 | 649 | 91 |
| “ 5, “ 2, | 1,219 | 730 | 669 | 12, | 1,232 | 764 | 105 | 704 | 87 |
| “ 5, “ 3, | 1,097 | 861 | 787 | 12, | 1,103 | 890 | 255 | 812 | 221 |
| “ 6, “ 1, | 1,217 | 739 | 687 | 12, | 1,229 | 775 | 164 | 711 | 153 |
| “ 6, “ 2, | 916 | 609 | 583 | 12, | 928 | 636 | 185 | 583 | 172 |
| “ 6, “ 3, | 1,119 | 790 | 784 | 12, | 1,128 | 877 | 306 | 814 | 236 |
| City, . . | 23,295 | 13,991 | 13,020 | - | 23,510 | 14,603 | 2,141 | 13,286 | 1,882 |
| LYNN. | | | | | | | | | |
| Ward 1, Pt. 1, | 449 | 305 | 226 | Dec. 12, | 449 | 317 | 9 | 238 | 2 |
| “ 2, “ 1, | 1,068 | 739 | 598 | 12, | 1,068 | 751 | 28 | 626 | 17 |
| “ 3, “ 1, | 831 | 594 | 487 | 12, | 831 | 606 | 33 | 500 | 10 |
| “ 3, “ 2, | 1,151 | 812 | 655 | 12, | 1,151 | 824 | 34 | 665 | 18 |
| “ 3, “ 3, | 1,103 | 645 | 511 | 12, | 1,103 | 657 | 14 | 530 | 3 |
| “ 3, “ 4, | 1,052 | 686 | 543 | 12, | 1,052 | 698 | 21 | 520 | 12 |
| “ 4, “ 1, | 922 | 664 | 582 | 12, | 922 | 676 | 41 | 584 | 19 |
| “ 4, “ 2, | 1,145 | 631 | 515 | 12, | 1,145 | 643 | 37 | 514 | 14 |
| “ 4, “ 3, | 1,119 | 528 | 417 | 12, | 1,119 | 540 | 11 | 430 | 5 |
| “ 4, “ 4, | 1,182 | 745 | 621 | 12, | 1,182 | 757 | 23 | 644 | 11 |
| “ 5, “ 1, | 1,136 | 608 | 463 | 12, | 1,136 | 620 | 13 | 495 | 4 |
| “ 5, “ 2, | 1,040 | 628 | 512 | 12, | 1,040 | 640 | 33 | 515 | 9 |
| “ 5, “ 3, | 855 | 598 | 501 | 12, | 855 | 610 | 34 | 481 | 10 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| LYNN — Con. | | | | | | | | | |
| Ward 5, Pt. 4, | 1,110 | 799 | 672 | Dec. 12, | 1,110 | 811 | 46 | 650 | 13 |
| “ 6, “ 1, | 1,157 | 617 | 493 | 12, | 1,157 | 629 | 19 | 499 | 6 |
| “ 6, “ 2, | 1,525 | 811 | 668 | 12, | 1,525 | 823 | 9 | 686 | 2 |
| “ 6, “ 3, | 1,133 | 487 | 376 | 12, | 1,133 | 499 | 25 | 400 | 7 |
| “ 6, “ 4, | 1,327 | 735 | 607 | 12, | 1,327 | 747 | 13 | 620 | 3 |
| “ 7, “ 1, | 809 | 514 | 431 | 12, | 809 | 526 | 2 | 434 | — |
| City, . . | 20,114 | 12,136 | 9,878 | — | 20,114 | 12,374 | 445 | 10,031 | 165 |
| MALDEN. | | | | | | | | | |
| Ward 1, . . | 1,133 | 685 | 561 | Dec. 5, | 1,131 | 692 | 24 | 501 | 14 |
| “ 2, . . | 1,352 | 710 | 620 | 5, | 1,355 | 718 | — | 622 | — |
| “ 3, . . | 1,067 | 776 | 677 | 5, | 1,067 | 782 | 20 | 612 | 12 |
| “ 4, . . | 1,006 | 570 | 461 | 5, | 1,009 | 574 | 26 | 420 | 15 |
| “ 5, . . | 907 | 660 | 544 | 5, | 907 | 666 | 33 | 438 | 20 |
| “ 6, . . | 1,289 | 813 | 636 | 5, | 1,290 | 822 | 9 | 548 | 4 |
| “ 7, . . | 1,246 | 810 | 634 | 5, | 1,246 | 818 | 33 | 529 | 14 |
| City, . . | 8,000 | 5,024 | 4,133 | — | 8,005 | 5,072 | 145 | 3,670 | 79 |
| MARLBOROUGH. | | | | | | | | | |
| Ward 1, . . | 405 | 380 | 307 | Dec. 5, | 405 | 383 | 21 | 298 | 5 |
| “ 2, . . | 573 | 496 | 429 | 5, | 573 | 504 | 91 | 414 | 57 |
| “ 3, . . | 745 | 527 | 458 | 5, | 745 | 539 | — | 466 | — |
| “ 4, . . | 734 | 598 | 435 | 5, | 734 | 611 | — | 439 | — |
| “ 5, . . | 566 | 433 | 386 | 5, | 566 | 441 | — | 392 | — |
| “ 6, . . | 484 | 430 | 384 | 5, | 484 | 437 | — | 385 | — |
| “ 7, . . | 424 | 349 | 310 | 5, | 424 | 362 | — | 316 | — |
| City, . . | 3,931 | 3,213 | 2,709 | — | 3,931 | 3,277 | 112 | 2,710 | 62 |
| MEDFORD. | | | | | | | | | |
| Ward 1, . . | 632 | 458 | 382 | Dec. 12, | 656 | 466 | 6 | 256 | 3 |
| “ 2, . . | 595 | 487 | 418 | 12, | 612 | 495 | 10 | 361 | 3 |
| “ 3, . . | 521 | 438 | 378 | 12, | 537 | 440 | 13 | 298 | 4 |
| “ 4, . . | 557 | 427 | 359 | 12, | 581 | 442 | 5 | 361 | 1 |
| “ 5, . . | 602 | 427 | 321 | 12, | 668 | 449 | 4 | 289 | 2 |
| “ 6, . . | 599 | 472 | 395 | 12, | 616 | 466 | 5 | 325 | 2 |
| City, . . | 3,506 | 2,709 | 2,253 | — | 3,670 | 2,758 | 43 | 1,890 | 15 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, NOV. 7, 1883. | | | CITY ELECTIONS, DECEMBER, 1883. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| NEW BEDFORD. | | | | | | | | | |
| Ward 1, Pt. 1, | 1,902 | 866 | 656 | Dec. 5, | 1,919 | 926 | 8 | 798 | 7 |
| “ 1, “ 2, | 1,821 | 732 | 619 | 5, | 1,836 | 783 | 4 | 684 | - |
| “ 2, “ 3, | 825 | 508 | 388 | 5, | 834 | 534 | 2 | 443 | 1 |
| “ 2, “ 4, | 684 | 510 | 392 | 5, | 684 | 546 | 4 | 457 | 4 |
| “ 3, “ 5, | 627 | 464 | 361 | 5, | 632 | 481 | 7 | 416 | - |
| “ 3, “ 6, | 865 | 561 | 409 | 5, | 869 | 585 | 6 | 500 | 3 |
| “ 4, “ 7, | 1,181 | 724 | 518 | 5, | 1,202 | 760 | 11 | 648 | 11 |
| “ 5, “ 8, | 840 | 479 | 390 | 5, | 857 | 516 | 4 | 452 | - |
| “ 5, “ 9, | 734 | 512 | 395 | 5, | 739 | 525 | 7 | 452 | - |
| “ 6, “ 10, | 1,895 | 707 | 553 | 5, | 1,921 | 770 | 5 | 677 | 3 |
| “ 6, “ 11, | 1,869 | 989 | 785 | 5, | 1,895 | 1,054 | 4 | 909 | 4 |
| City, . . | 13,243 | 7,047 | 5,461 | - | 13,388 | 7,479 | 62 | 6,436 | 33 |
| NEWBURYPORT. | | | | | | | | | |
| Ward 1, Pt. 1, | 610 | 500 | 378 | Dec. 12, | 612 | 507 | - | 404 | - |
| “ 2, “ 2, | 575 | 404 | 330 | 12, | 578 | 412 | 3 | 328 | - |
| “ 3, “ 3, | 717 | 532 | 415 | 12, | 727 | 553 | 2 | 443 | - |
| “ 4, “ 4, | 607 | 456 | 362 | 12, | 610 | 461 | 8 | 366 | - |
| “ 5, “ 5, | 684 | 482 | 387 | 12, | 636 | 487 | 2 | 406 | - |
| “ 6, “ 6, | 692 | 568 | 440 | 12, | 695 | 572 | 1 | 415 | - |
| City, . . | 3,835 | 2,942 | 2,312 | - | 3,858 | 2,992 | 16 | 2,364 | - |
| NEWTON. | | | | | | | | | |
| Ward 1, Pt. 1, | 624 | 250 | 215 | Dec. 5, | 624 | 258 | - | 200 | - |
| “ 1, “ 2, | 529 | 296 | 267 | 5, | 529 | 298 | 7 | 177 | 3 |
| “ 2, “ 1, | 836 | 428 | 355 | 5, | 836 | 440 | 7 | 308 | 6 |
| “ 2, “ 2, | 622 | 404 | 384 | 5, | 622 | 468 | 11 | 290 | 3 |
| “ 3, “ 1, | 589 | 354 | 311 | 5, | 589 | 357 | 14 | 281 | 8 |
| “ 3, “ 2, | 517 | 355 | 309 | 5, | 517 | 357 | 45 | 240 | 26 |
| “ 4, “ 1, | 754 | 480 | 394 | 5, | 754 | 480 | 8 | 268 | 5 |
| “ 4, “ 2, | 217 | 126 | 96 | 5, | 217 | 124 | - | 79 | - |
| “ 5, “ 1, | 656 | 323 | 283 | 5, | 656 | 325 | 3 | 183 | 3 |
| “ 5, “ 2, | 556 | 335 | 298 | 5, | 556 | 336 | 7 | 166 | 4 |
| “ 6, “ 1, | 544 | 362 | 295 | 5, | 544 | 366 | 8 | 157 | 7 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| NEWTON—CON. | | | | | | | | | |
| Ward 6, Pt. 2, | 611 | 355 | 302 | Dec. 5, | 611 | 354 | 14 | 161 | 4 |
| “ 7, “ 1, | 697 | 515 | 442 | 5, | 697 | 515 | 26 | 262 | 14 |
| City, . . | 7,752 | 4,643 | 3,946 | - | 7,752 | 4,678 | 150 | 2,702 | 83 |
| NORTHAMPTON. | | | | | | | | | |
| Ward 1, . . | 633 | 437 | 361 | Dec. 5, | 530 | 448 | 4 | 386 | 3 |
| “ 2, . . | 437 | 342 | 299 | 5, | 437 | 359 | 5 | 305 | 8 |
| “ 3, . . | 703 | 472 | 394 | 5, | 503 | 484 | 1 | 426 | 1 |
| “ 4, . . | 516 | 312 | 270 | 5, | 516 | 322 | - | 276 | - |
| “ 5, . . | 621 | 457 | 392 | 5, | 621 | 467 | 3 | 418 | 2 |
| “ 6, . . | 486 | 375 | 321 | 5, | 480 | 378 | 24 | 320 | 22 |
| “ 7, . . | 477 | 344 | 291 | 5, | 476 | 363 | 7 | 313 | 5 |
| City, . . | 3,873 | 2,739 | 2,328 | - | 3,563 | 2,821 | 44 | 2,444 | 36 |
| PITTSFIELD. | | | | | | | | | |
| Ward 1, . . | 787 | 508 | 438 | Dec. 5, | 796 | 526 | - | 493 | - |
| “ 2, . . | 842 | 634 | 542 | 5, | 846 | 655 | - | 603 | - |
| “ 3, . . | 771 | 580 | 493 | 5, | 771 | 604 | - | 540 | - |
| “ 4, . . | 684 | 539 | 468 | 5, | 684 | 548 | - | 488 | - |
| “ 5, . . | 696 | 471 | 399 | 5, | 706 | 495 | - | 454 | - |
| “ 6, . . | 857 | 582 | 482 | 5, | 861 | 604 | - | 539 | - |
| “ 7, . . | 803 | 591 | 501 | 5, | 807 | 611 | - | 536 | - |
| City, . . | 5,440 | 3,905 | 3,323 | - | 5,471 | 4,043 | - | 3,653 | - |
| QUINCY. | | | | | | | | | |
| Ward 1, . . | 963 | 679 | 598 | Dec. 5, | 975 | 697 | - | 605 | - |
| “ 2, . . | 759 | 562 | 490 | 5, | 759 | 570 | - | 482 | - |
| “ 3, . . | 1,370 | 991 | 622 | 5, | 1,385 | 724 | - | 646 | - |
| “ 4, . . | 1,511 | 747 | 679 | 5, | 1,522 | 765 | - | 696 | - |
| “ 5, . . | 663 | 513 | 436 | 5, | 663 | 518 | 21 | 412 | 17 |
| “ 6, . . | 526 | 381 | 339 | 5, | 532 | 400 | - | 354 | - |
| City, . . | 5,792 | 3,573 | 3,164 | - | 5,836 | 3,674 | 21 | 3,195 | 17 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| SALEM. | | | | | | | | | |
| Ward 1, Pt. 1, | 667 | 442 | 386 | Dec. 12, | 667 | 456 | - | 399 | - |
| " 1, " 2, | 639 | 367 | 314 | 12, | 639 | 380 | - | 346 | - |
| " 2, " 3, | 776 | 509 | 501 | 12, | 776 | 576 | 1 | 493 | 1 |
| " 2, " 4, | 858 | 641 | 580 | 12, | 858 | 650 | 3 | 568 | 3 |
| " 3, " 5, | 701 | 444 | 376 | 12, | 701 | 460 | 8 | 400 | 7 |
| " 3, " 6, | 515 | 367 | 326 | 12, | 515 | 370 | - | 327 | - |
| " 4, " 7, | 600 | 421 | 362 | 12, | 600 | 427 | 6 | 379 | 6 |
| " 4, " 8, | 939 | 545 | 485 | 12, | 939 | 558 | 1 | 516 | 1 |
| " 5, " 9, | 1,560 | 502 | 448 | 12, | 1,560 | 537 | 3 | 484 | 3 |
| " 5, " 10, | 907 | 649 | 573 | 12, | 907 | 656 | 1 | 572 | 1 |
| " 6, " 11, | 663 | 472 | 423 | 12, | 663 | 481 | 2 | 433 | 2 |
| " 6, " 12, | 603 | 410 | 371 | 12, | 603 | 421 | 1 | 379 | 1 |
| City, . . | 9,428 | 5,829 | 5,125 | - | 9,428 | 5,972 | 26 | 5,296 | 25 |
| SOMERVILLE. | | | | | | | | | |
| Ward 1, Pt. 1, | 617 | 372 | 319 | Dec. 5, | 617 | 373 | 2 | 223 | - |
| " 1, " 2, | 507 | 351 | 284 | 5, | 507 | 352 | 1 | 207 | 1 |
| " 1, " 3, | 799 | 471 | 388 | 5, | 799 | 478 | 3 | 253 | 3 |
| " 1, " 4, | 920 | 387 | 326 | 5, | 920 | 386 | - | 217 | - |
| " 2, " 1, | 755 | 563 | 491 | 5, | 755 | 565 | 3 | 340 | 1 |
| " 2, " 2, | 967 | 601 | 526 | 5, | 967 | 602 | 7 | 377 | 2 |
| " 2, " 3, | 732 | 335 | 290 | 5, | 732 | 338 | - | 201 | - |
| " 2, " 4, | 1,086 | 556 | 445 | 5, | 1,086 | 563 | 1 | 264 | - |
| " 2, " 5, | 928 | 400 | 331 | 5, | 928 | 402 | 1 | 195 | 1 |
| " 3, " 1, | 986 | 636 | 532 | 5, | 986 | 637 | 3 | 331 | 3 |
| " 3, " 2, | 646 | 445 | 380 | 5, | 646 | 445 | 8 | 240 | 2 |
| " 3, " 3, | 737 | 544 | 479 | 5, | 737 | 545 | 10 | 339 | 4 |
| " 3, " 4, | 916 | 462 | 394 | 5, | 916 | 464 | 4 | 238 | 2 |
| " 4, " 1, | 696 | 429 | 361 | 5, | 696 | 438 | 9 | 251 | 5 |
| " 4, " 2, | 699 | 387 | 315 | 5, | 699 | 392 | 3 | 192 | 2 |
| " 4, " 3, | 546 | 395 | 339 | 5, | 546 | 397 | 1 | 251 | - |
| " 4, " 4, | 886 | 563 | 478 | 5, | 886 | 566 | 5 | 301 | 3 |
| City, . . | 13,428 | 7,897 | 6,678 | - | 13,428 | 7,943 | 61 | 4,419 | 29 |

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| SPRINGFIELD. | | | | | | | | | |
| Ward 1, Pt. A, | 1,552 | 1,207 | 1,071 | Dec. 5, | 1,563 | 1,209 | 6 | 812 | 2 |
| " 1, " B, | 1,433 | 987 | 833 | 5, | 1,444 | 997 | 2 | 730 | 1 |
| " 1, " C, | 981 | 509 | 428 | 5, | 990 | 519 | 1 | 392 | - |
| " 2, " D, | 613 | 390 | 322 | 5, | 627 | 395 | - | 276 | - |
| " 2, " E, | 909 | 552 | 457 | 5, | 918 | 554 | 5 | 411 | 5 |
| " 3, " F, | 837 | 480 | 420 | 5, | 844 | 486 | 2 | 385 | 1 |
| " 3, " G, | 799 | 528 | 453 | 5, | 807 | 537 | 4 | 427 | 3 |
| " 4, " H, | 710 | 512 | 444 | 5, | 716 | 514 | 5 | 370 | 1 |
| " 4, " I, | 622 | 527 | 477 | 5, | 627 | 528 | 18 | 406 | 8 |
| " 5, " J, | 856 | 718 | 621 | 5, | 858 | 721 | 8 | 528 | 3 |
| " 5, " K, | 1,791 | 1,312 | 1,124 | 5, | 1,799 | 1,321 | 21 | 895 | 4 |
| " 5, " L, | 752 | 610 | 531 | 5, | 754 | 610 | 3 | 430 | 2 |
| " 6, " M, | 1,070 | 719 | 622 | 5, | 1,074 | 723 | 8 | 520 | 3 |
| " 7, " N, | 808 | 654 | 564 | 5, | 814 | 659 | 3 | 477 | - |
| " 8, " O, | 706 | 337 | 263 | 5, | 712 | 347 | 1 | 271 | 1 |
| City, . . | 14,439 | 10,042 | 8,630 | - | 14,547 | 10,120 | 87 | 7,330 | 34 |
| TAUNTON. | | | | | | | | | |
| Ward 1, Pt. A, | 700 | 536 | 474 | Dec. 5, | 700 | 535 | 4 | 459 | 2 |
| " 1, " B, | 738 | 573 | 525 | 5, | 738 | 584 | 6 | 473 | 5 |
| " 2, . . | 534 | 385 | 335 | 5, | 534 | 391 | 5 | 329 | 3 |
| " 3, . . | 1,049 | 727 | 649 | 5, | 1,049 | 736 | 6 | 634 | 4 |
| " 4, . . | 644 | 504 | 441 | 5, | 644 | 508 | 9 | 442 | 7 |
| " 5, . . | 384 | 249 | 209 | 5, | 384 | 255 | 1 | 171 | - |
| " 6, . . | 806 | 588 | 519 | 5, | 806 | 591 | 5 | 475 | 4 |
| " 7, . . | 680 | 457 | 378 | 5, | 680 | 476 | 3 | 400 | 3 |
| " 8, Pt. A, | 998 | 493 | 427 | 5, | 998 | 508 | 1 | 453 | - |
| " 8, " B, | 864 | 563 | 487 | 5, | 864 | 574 | 6 | 496 | 5 |
| City, . . | 7,397 | 5,075 | 4,444 | - | 7,397 | 5,158 | 46 | 4,332 | 33 |
| WALTHAM. | | | | | | | | | |
| Ward 1, . . | 1,024 | 701 | 617 | Dec. 5, | 1,024 | 705 | 14 | 562 | 9 |
| " 2, . . | 482 | 314 | 268 | 5, | 482 | 313 | 7 | 209 | 2 |
| " 3, . . | 794 | 442 | 391 | 5, | 794 | 444 | 8 | 360 | 4 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| WALTHAM-COR. | | | | | | | | | |
| Ward 4, . . . | 1,193 | 754 | 653 | Dec. 5, | 1,193 | 768 | 20 | 590 | 11 |
| " 5, . . . | 773 | 552 | 461 | 5, | 773 | 564 | 16 | 422 | 12 |
| " 6, . . . | 1,038 | 800 | 686 | 5, | 1,038 | 810 | 17 | 618 | 10 |
| " 7, . . . | 809 | 516 | 451 | 5, | 809 | 518 | 6 | 437 | 6 |
| City, . . . | 6,113 | 4,079 | 3,527 | - | 6,113 | 4,112 | 88 | 3,198 | 54 |
| WOBURN. | | | | | | | | | |
| Ward 1, . . . | 729 | 523 | 434 | Dec. 5, | 739 | 544 | 90 | 480 | 61 |
| " 2, . . . | 837 | 570 | 503 | 5, | 845 | 597 | 79 | 515 | 69 |
| " 3, . . . | 735 | 543 | 471 | 5, | 744 | 567 | 120 | 512 | 77 |
| " 4, . . . | 678 | 494 | 430 | 5, | 693 | 523 | 93 | 456 | 69 |
| " 5, . . . | 319 | 210 | 171 | 5, | 322 | 223 | 19 | 183 | 7 |
| " 6, . . . | 391 | 280 | 246 | 5, | 394 | 284 | 87 | 248 | 66 |
| " 7, . . . | 271 | 189 | 149 | 5, | 271 | 197 | 28 | 179 | 11 |
| City, . . . | 3,960 | 2,814 | 2,404 | - | 4,008 | 2,940 | 516 | 2,573 | 382 |
| WORCESTER. | | | | | | | | | |
| Ward 1, Pt. 1, | 1,199 | 834 | 702 | Dec. 12, | 1,212 | 839 | 81 | 706 | 74 |
| " 1, " 2, | 1,404 | 806 | 665 | 12, | 1,427 | 824 | 89 | 663 | 86 |
| " 2, " 1, | 1,514 | 717 | 599 | 12, | 1,538 | 736 | 73 | 595 | 69 |
| " 2, " 2, | 1,899 | 1,138 | 932 | 12, | 1,878 | 1,156 | 120 | 918 | 98 |
| " 2, " 3, | 1,610 | 898 | 738 | 12, | 1,628 | 921 | 162 | 771 | 169 |
| " 3, " 1, | 1,193 | 548 | 435 | 12, | 1,232 | 577 | 16 | 475 | 10 |
| " 3, " 2, | 1,665 | 880 | 735 | 12, | 1,708 | 905 | 39 | 776 | 30 |
| " 4, " 1, | 1,114 | 639 | 542 | 12, | 1,141 | 655 | 13 | 562 | 8 |
| " 4, " 2, | 1,324 | 836 | 713 | 12, | 1,350 | 848 | 14 | 740 | 5 |
| " 4, " 3, | 694 | 472 | 382 | 12, | 701 | 479 | 24 | 380 | 19 |
| " 5, " 1, | 1,044 | 620 | 512 | 12, | 1,060 | 631 | 26 | 505 | 17 |
| " 5, " 2, | 1,679 | 793 | 665 | 12, | 1,697 | 812 | 1 | 671 | - |
| " 5, " 3, | 2,244 | 871 | 761 | 12, | 2,261 | 885 | 9 | 788 | 4 |
| " 5, " 4, | 813 | 517 | 443 | 12, | 838 | 527 | 10 | 453 | 7 |
| " 6, " 1, | 836 | 625 | 507 | 12, | 844 | 634 | 91 | 511 | 82 |
| " 6, " 2, | 804 | 559 | 463 | 12, | 812 | 563 | 152 | 487 | 143 |
| " 6, " 3, | 1,235 | 741 | 606 | 12, | 1,299 | 763 | 184 | 648 | 171 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| CITIES, WARDS AND VOTING PRE- CINCTS. | STATE ELECTION, Nov. 7, 1893. | | | CITY ELECTIONS, DECEMBER, 1893. | | | | | |
|---|----------------------------------|----------------------------|--------------------------|---------------------------------|--------------------|-----------------------|--------------|-----------------------|--------------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | Date of Elec- tion. | Assessed Polls. | Registered Voters. | | Persons who voted. | |
| | Male. | Male. | Male. | | Male. | Male. | Fe- male. | Male. | Fe- male. |
| WORCESTER — Con. | | | | | | | | | |
| Ward 7, Pt. 1, | 834 | 585 | 496 | Dec. 12, | 850 | 596 | 83 | 476 | 76 |
| " 7, " 2, | 1,141 | 937 | 763 | 12, | 1,150 | 945 | 128 | 744 | 120 |
| " 7, " 3, | 1,520 | 1,122 | 913 | 12, | 1,535 | 1,135 | 121 | 857 | 110 |
| " 8, " 1, | 923 | 694 | 586 | 12, | 939 | 704 | 57 | 578 | 47 |
| " 8, " 2, | 822 | 649 | 535 | 12, | 827 | 655 | 77 | 530 | 69 |
| " 8, " 3, | 1,012 | 793 | 662 | 12, | 1,018 | 801 | 102 | 660 | 90 |
| City, . . | 28,543 | 17,274 | 14,355 | - | 28,943 | 17,591 | 1,671 | 14,484 | 1,484 |
| 30 Cities, . | 445,658 | 271,353 | 229,138 | - | 448,024 | 277,990 | 19,915 | 224,489 | 16,489 |

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| ABINGTON. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 662 | 566 | 1 | - | - | 651 | 568 | 465 |
| " 2, . . . | - | 669 | 535 | 14 | - | - | 682 | 538 | 424 |
| Town, . . . | - | 1,331 | 1,101 | 15 | 330 | - | 1,333 | 1,106 | 889 |
| ACTON. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 195 | 158 | - | - | - | 197 | 153 | 127 |
| " 2, . . . | - | 224 | 176 | - | - | - | 239 | 187 | 156 |
| " 3, . . . | - | 201 | 160 | - | - | - | 215 | 160 | 138 |
| Town, . . . | - | 620 | 494 | - | 119 | - | 651 | 500 | 421 |
| ANDOVER. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 1,004 | 947 | 4 | - | - | 1,103 | 972 | 721 |
| " 2, . . . | - | 230 | 212 | - | - | - | 243 | 204 | 174 |
| Town, . . . | - | 1,234 | 1,159 | 4 | 719 | - | 1,346 | 1,176 | 895 |
| ATHOL. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 715 | 676 | 5 | - | - | 751 | 684 | 518 |
| " 2, . . . | - | 1,192 | 892 | 17 | - | - | 1,275 | 961 | 742 |
| Town, . . . | - | 1,907 | 1,568 | 22 | 993 | 10 | 2,026 | 1,645 | 1,260 |
| ATTLEBOROUGH.* | | | | | | | | | |
| Precinct E, . . . | Mar. 20, | 1,011 | 671 | 9 | - | - | 1,169 | 742 | 618 |
| " W, . . . | - | 1,097 | 712 | 7 | - | - | 1,118 | 702 | 558 |
| Town, . . . | - | 2,108 | 1,383 | 16 | 865 | 8 | 2,277 | 1,444 | 1,176 |
| BEVERLY.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 243 | 193 | - | - | - | 252 | 201 | 163 |
| " 2, . . . | - | 418 | 347 | - | - | - | 459 | 355 | 257 |
| " 3, . . . | - | 809 | 589 | 4 | - | - | 852 | 617 | 479 |
| " 4, . . . | - | 772 | 602 | 6 | - | - | 814 | 620 | 508 |
| " 5, . . . | - | 793 | 588 | 7 | - | - | 853 | 613 | 494 |
| Town, . . . | - | 3,035 | 2,319 | 17 | 1,460 | 3 | 3,230 | 2,406 | 1,890 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| BILLERICA. | | | | | | | | | |
| Precinct 1, . . . | Mar. 20, | 318 | 282 | 16 | - | - | 320 | 303 | 25 |
| " 2, . . . | - | 281 | 238 | 6 | - | - | 262 | 251 | 240 |
| Town, . . . | - | 599 | 520 | 22 | 360 | 8 | 582 | 554 | 491 |
| BLACKSTONE.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 13, | 865 | 684 | - | - | - | 825 | 672 | 599 |
| " 2, . . . | - | 763 | 345 | - | - | - | 911 | 408 | 300 |
| Town, . . . | - | 1,628 | 1,029 | - | 823 | - | 1,736 | 1,080 | 959 |
| BOXFORD. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 137 | 112 | - | - | - | 129 | 113 | 86 |
| " 2, . . . | - | 87 | 79 | - | - | - | 81 | 75 | 57 |
| Town, . . . | - | 224 | 191 | - | 79 | - | 210 | 188 | 143 |
| BROOKFIELD.* | | | | | | | | | |
| Precinct 1, . . . | Apr. 3, | 618 | 562 | 5 | - | - | 613 | 577 | 420 |
| " 2, . . . | - | 286 | 193 | 13 | - | - | 273 | 205 | 169 |
| Town, . . . | - | 904 | 755 | 18 | 530 | 4 | 886 | 782 | 589 |
| CHELMSFORD. | | | | | | | | | |
| Precinct 1, . . . | Mar. 20, | 460 | 339 | - | - | - | 471 | 354 | 306 |
| " 2, . . . | - | 293 | 197 | - | - | - | 304 | 211 | 189 |
| " 3, . . . | - | 81 | 50 | - | - | - | 66 | 53 | 43 |
| Town, . . . | - | 834 | 586 | - | 175 | - | 841 | 618 | 538 |
| CONCORD.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 27, | 807 | 539 | 21 | - | - | 803 | 522 | 438 |
| " 2, . . . | - | 391 | 213 | 7 | - | - | 338 | 216 | 179 |
| Town, . . . | - | 1,198 | 752 | 28 | 347 | 11 | 1,141 | 738 | 617 |
| DEERFIELD,* | | | | | | | | | |
| Precinct A, . . . | Mar. 6, | 334 | 279 | - | - | - | 316 | 256 | 222 |
| " B, . . . | - | 229 | 184 | - | - | - | 231 | 179 | 147 |
| " C, . . . | - | 309 | 192 | - | - | - | 318 | 194 | 164 |
| Town, . . . | - | 872 | 655 | - | 476 | - | 865 | 629 | 533 |

* Town officers nominated and elected under the Election Act of 1893.

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|---------|-----------------------|---------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | | Male. | Female. | Male. | Female. | | | |
| ERVING. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 213 | 156 | - | - | - | 210 | 162 | 133 |
| " 2, . . . | - | 102 | 80 | - | - | - | 98 | 75 | 64 |
| Town, . . . | - | 315 | 236 | - | 135 | - | 308 | 237 | 197 |
| FRAMINGHAM.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 500 | 426 | 1 | - | - | 477 | 429 | 396 |
| " 2, . . . | - | 510 | 418 | 5 | - | - | 488 | 406 | 354 |
| " 3, . . . | - | 635 | 532 | 4 | - | - | 648 | 509 | 427 |
| " 4, . . . | - | 850 | 662 | 3 | - | - | 1,012 | 674 | 570 |
| Town, . . . | - | 2,495 | 2,033 | 18 | 1,752 | 7 | 2,625 | 2,018 | 1,737 |
| FREETOWN. | | | | | | | | | |
| Precinct 1, . . . | Mar. 20, | 221 | 200 | 8 | - | - | 290 | 175 | 137 |
| " 2, . . . | - | 174 | 107 | 1 | - | - | 115 | 97 | 53 |
| Town, . . . | - | 395 | 307 | 4 | 206 | 3 | 405 | 272 | 190 |
| GARDNER.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 855 | 666 | 7 | - | - | 850 | 632 | 530 |
| " 2, . . . | - | 1,330 | 758 | - | - | - | 1,260 | 706 | 609 |
| " 3, . . . | - | 565 | 447 | 2 | - | - | 569 | 435 | 338 |
| Town, . . . | - | 2,750 | 1,871 | 9 | 1,411 | 1 | 2,679 | 1,775 | 1,467 |
| GILL. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | - | - | - | - | - | 132 | 112 | 83 |
| " 2, . . . | - | - | - | - | - | - | 97 | 69 | 56 |
| Town, . . . | - | 238 | 178 | - | 84 | - | 229 | 181 | 139 |
| GREAT BARRINGTON. | | | | | | | | | |
| Precinct A, . . . | Mar. 27, | 966 | 794 | - | - | - | 1,023 | 814 | 657 |
| " B, . . . | - | 301 | 245 | - | - | - | 319 | 250 | 225 |
| Town, . . . | - | 1,257 | 1,039 | - | 761 | - | 1,342 | 1,064 | 882 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| HARDWICK.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 348 | 235 | - | - | - | 362 | 233 | 182 |
| " 2, . . . | - | 380 | 180 | - | - | - | 387 | 186 | 164 |
| Town, . . . | - | 728 | 415 | - | 287 | - | 749 | 419 | 346 |
| LEICESTER. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 438 | 312 | 28 | - | - | 448 | 327 | 297 |
| " 2, . . . | - | 266 | 209 | 4 | - | - | 264 | 196 | 177 |
| " 3, . . . | - | 204 | 164 | 6 | - | - | 210 | 171 | 158 |
| Town, . . . | - | 908 | 685 | 38 | 329 | 20 | 922 | 694 | 632 |
| LONGMEADOW. | | | | | | | | | |
| Precinct 1, . . . | Apr. 3, | - | - | - | - | - | 143 | 108 | 88 |
| " 2, . . . | - | - | - | - | - | - | 507 | 210 | 137 |
| Town, . . . | - | 698 | 330 | 1 | 174 | - | 650 | 318 | 225 |
| MELROSE.* | | | | | | | | | |
| Precinct 1, . . . | May 6, | - | - | - | - | - | 634 | 446 | 380 |
| " 2, . . . | - | - | - | - | - | - | 1,141 | 890 | 754 |
| " 3, . . . | - | - | - | - | - | - | 1,231 | 793 | 681 |
| Town, . . . | - | 2,723 | 2,062 | 48 | 1,113 | 8 | 3,006 | 2,129 | 1,815 |
| MIDDLEBOROUGH.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 151 | 106 | 2 | - | - | 147 | 107 | 72 |
| " 2, . . . | - | 1,785 | 1,397 | 1 | - | - | 1,766 | 1,457 | 1,104 |
| Town, . . . | - | 1,936 | 1,503 | 3 | 696 | - | 1,913 | 1,564 | 1,176 |
| MONTAGUE.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 1,239 | 769 | - | - | - | 1,246 | 695 | 650 |
| " 2, . . . | - | 153 | 132 | - | - | - | 153 | 120 | 106 |
| " 3, . . . | - | 261 | 215 | 1 | - | - | 255 | 199 | 152 |
| Town, . . . | - | 1,653 | 1,116 | 1 | 777 | - | 1,654 | 1,014 | 908 |

* Town officers nominated and elected under the Election Act of 1893.

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| TOWNS AND VOTING PRE- CINCTS. | Date of Elec- tion, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|------------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| NATICK.* | | | | | | | | | |
| Precinct 1, . . | Mar. 20, | 2,634 | 1,878 | 218 | - | - | 2,123 | 1,835 | 1,527 |
| " 2, . . | - | 394 | 293 | 7 | - | - | 381 | 278 | 250 |
| Town, . . . | - | 3,028 | 2,171 | 225 | 1,797 | 118 | 2,504 | 2,113 | 1,777 |
| NORTH ANDOVER.* | | | | | | | | | |
| Precinct 1, . . | Mar. 6, | 670 | 523 | - | - | - | 616 | 536 | 454 |
| " 2, . . | - | 341 | 256 | 3 | - | - | 319 | 258 | 208 |
| Town, . . . | - | 1,011 | 779 | 3 | 581 | - | 935 | 794 | 662 |
| PALMER. | | | | | | | | | |
| Precinct A, . . | Mar. 20, | 574 | 500 | 1 | - | - | 564 | 515 | 415 |
| " B, . . | - | 401 | 269 | - | - | - | 390 | 284 | 241 |
| " C, . . | - | 443 | 174 | - | - | - | 446 | 174 | 134 |
| " D, . . | - | 273 | 146 | 6 | - | - | 290 | 150 | 125 |
| Town, . . . | - | 1,691 | 1,089 | 7 | 787 | 5 | 1,690 | 1,123 | 915 |
| PEABODY.* | | | | | | | | | |
| Precinct 1, . . | Mar. 13, | 1,023 | 802 | 3 | - | - | 1,023 | 805 | 700 |
| " 2, . . | - | 1,010 | 748 | 13 | - | - | 1,006 | 757 | 692 |
| " 3, . . | - | 947 | 726 | 12 | - | - | 1,047 | 770 | 718 |
| Town, . . . | - | 2,980 | 2,276 | 28 | 1,942 | 20 | 3,076 | 2,332 | 2,110 |
| REVERE.* | | | | | | | | | |
| Precinct 1, . . | Mar. 6, | 395 | 280 | 2 | - | - | 456 | 294 | 249 |
| " 2, . . | - | 478 | 330 | 9 | - | - | 505 | 342 | 281 |
| " 3, . . | - | 826 | 567 | 20 | - | - | 839 | 588 | 502 |
| Town, . . . | - | 1,699 | 1,157 | 31 | 985 | 3 | 1,800 | 1,224 | 1,032 |
| ROCKLAND. | | | | | | | | | |
| Precinct 1, . . | Mar. 6, | 758 | 634 | 23 | - | - | 748 | 711 | 545 |
| " 2, . . | - | 907 | 759 | 19 | - | - | 915 | 783 | 605 |
| Town, . . . | - | 1,665 | 1,443 | 42 | 830 | 9 | 1,663 | 1,494 | 1,150 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| ROYALSTON. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 175 | 168 | - | - | - | 169 | 137 | 93 |
| " 2, . . . | - | 166 | 109 | - | - | - | 118 | 102 | 65 |
| Town,. . . | - | 341 | 277 | - | 119 | - | 287 | 239 | 158 |
| SOMERSET. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 363 | 267 | - | - | - | 361 | 276 | 220 |
| " 2, . . . | - | 178 | 138 | - | - | - | 194 | 135 | 116 |
| Town,. . . | - | 541 | 406 | - | 181 | - | 555 | 411 | 336 |
| TEMPLETON. | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 186 | 158 | 1 | - | - | 185 | 154 | 110 |
| " 2, . . . | - | 164 | 135 | 3 | - | - | 154 | 129 | 86 |
| " 3, . . . | - | 137 | 96 | - | - | - | 154 | 95 | 77 |
| " 4, . . . | - | 387 | 308 | 1 | - | - | 403 | 297 | 238 |
| Town,. . . | - | 874 | 697 | 5 | 266 | - | 896 | 675 | 511 |
| TRURO. | | | | | | | | | |
| Precinct A, . . . | Feb. 6, | 80 | 64 | - | - | - | 68 | 63 | 51 |
| " B, . . . | - | 100 | 69 | - | - | - | 105 | 75 | 49 |
| " C, . . . | - | 59 | 50 | - | - | - | 63 | 47 | 29 |
| Town,. . . | - | 239 | 183 | - | 85 | - | 236 | 185 | 129 |
| WARREN.* | | | | | | | | | |
| Precinct A, . . . | Apr. 3, | 876 | 626 | 43 | - | - | 800 | 583 | 513 |
| " B, . . . | - | 501 | 207 | - | - | - | 452 | 181 | 151 |
| Town,. . . | - | 1,377 | 833 | 43 | 622 | 33 | 1,252 | 764 | 664 |
| WATERTOWN.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 13, | 1,097 | 690 | 54 | - | - | 987 | 712 | 624 |
| " 2, . . . | - | 1,203 | 760 | 58 | - | - | 1,094 | 741 | 649 |
| Town,. . . | - | 2,300 | 1,450 | 112 | 1,192 | 49 | 2,081 | 1,453 | 1,273 |

* Town officers nominated and elected under the Election Act of 1893.

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| TOWNS AND VOTING PRE- CINCTS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Elec- tion, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| WAYLAND.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 27, | - | - | - | - | - | 218 | 151 | 117 |
| " 2, . . . | - | - | - | - | - | - | 343 | 261 | 231 |
| Town,. . . | - | 522 | 400 | - | 164 | - | 561 | 412 | 348 |
| WEST SPRINGFIELD. | | | | | | | | | |
| Precinct A, . . . | Apr. 3, | 773 | 504 | 1 | - | - | 802 | 535 | 416 |
| " B, . . . | - | 289 | 211 | 3 | - | - | 296 | 233 | 181 |
| " C, . . . | - | 376 | 260 | 2 | - | - | 370 | 287 | 251 |
| Town,. . . | - | 1,438 | 975 | 6 | 482 | 1 | 1,468 | 1,055 | 848 |
| WEYMOUTH.* | | | | | | | | | |
| Precinct 1, . . . | Mar. 6, | 498 | 369 | 7 | - | - | 481 | 369 | 314 |
| " 2, . . . | - | 495 | 425 | 6 | - | - | 506 | 414 | 370 |
| " 3, . . . | - | 674 | 612 | - | - | - | 687 | 612 | 547 |
| " 4, . . . | - | 409 | 356 | - | - | - | 423 | 351 | 296 |
| " 5, . . . | - | 517 | 486 | - | - | - | 524 | 466 | 399 |
| " 6, . . . | - | 493 | 437 | 6 | - | - | 563 | 438 | 378 |
| Town,. . . | - | 3,086 | 2,685 | 19 | 1,472 | 7 | 3,184 | 2,653 | 2,304 |
| 40 Towns, . . . | - | 55,377 | 41,097 | 780 | 26,455 | 328 | 55,789 | 41,478 | 34,332 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| Towns. | Date of Elec- tion, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|---------------------|------------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| Acushnet, . . . | Mar. 6, | 248 | 251 | 5 | 92 | 3 | 253 | 251 | 114 |
| Adams,* . . . | Apr. 3, | 1,641 | 1,204 | 4 | 982 | 3 | 1,690 | 1,228 | 1,046 |
| Agawam,* . . . | Apr. 3, | 576 | 441 | - | 303 | - | 602 | 443 | 364 |
| Alford, . . . | Mar. 20, | 94 | 86 | - | 61 | - | 94 | 80 | 70 |
| Amesbury,* . . . | Mar. 6, | 2,502 | 1,912 | 27 | 1,603 | 18 | 2,609 | 1,887 | 1,543 |
| Amherst,* . . . | Mar. 6, | 1,086 | 944 | - | 629 | - | 1,095 | 945 | 689 |
| Arlington,* . . . | Mar. 6, | 1,635 | 1,253 | 6 | 909 | 3 | 1,802 | 1,274 | 1,089 |
| Ashburnham, . . . | Mar. 6, | 608 | 476 | 11 | 197 | 6 | 598 | 479 | 343 |
| Ashby, . . . | Mar. 7, | 274 | 289 | 10 | 133 | 3 | 255 | 237 | 186 |
| Ashfield,* . . . | Mar. 6, | 289 | 260 | 12 | 165 | 7 | 295 | 262 | 192 |
| Ashland,* . . . | Mar. 6, | 611 | 429 | 12 | 336 | 11 | 631 | 449 | 394 |
| Auburn, . . . | Mar. 27, | 336 | 205 | 14 | 143 | 6 | 300 | 209 | 168 |
| Avon,* . . . | Mar. 7, | 470 | 424 | - | 364 | - | 501 | 426 | 363 |
| Ayer,* . . . | Apr. 3, | 710 | 524 | 8 | 398 | 3 | 774 | 549 | 433 |
| Barnstable, . . . | Mar. 6, | 1,083 | 1,022 | 3 | 480 | 3 | 1,097 | 1,032 | 661 |
| Barre, . . . | Mar. 6, | 690 | 465 | 9 | 201 | 6 | 625 | 464 | 348 |
| Becket,* . . . | Mar. 20, | 279 | 210 | 1 | 147 | - | 275 | 202 | 162 |
| Bedford, . . . | Mar. 6, | 294 | 235 | 29 | 100 | 3 | 316 | 234 | 151 |
| Belchertown,* . . . | Mar. 6, | 572 | 481 | 1 | 298 | - | 572 | 473 | 356 |
| Bellingham, . . . | Mar. 6, | 357 | 237 | - | 101 | - | 366 | 231 | 165 |
| Belmont,* . . . | Mar. 6, | 640 | 411 | 34 | 230 | 26 | 651 | 418 | 363 |
| Berkley, . . . | Mar. 13, | 245 | 226 | - | 125 | - | 234 | 225 | 157 |
| Berlin, . . . | Mar. 6, | 226 | 224 | 11 | 128 | 7 | 227 | 221 | 163 |
| Bernardston, . . . | Mar. 6, | 227 | 198 | - | 114 | - | 217 | 205 | 165 |
| Blandford, . . . | Mar. 6, | 226 | 212 | - | 92 | - | 227 | 220 | 157 |
| Bolton, . . . | Mar. 6, | 226 | 183 | 17 | 102 | 8 | 175 | 74 | 102 |
| Bourne,* . . . | Mar. 6, | 438 | 408 | - | 178 | - | 457 | 415 | 232 |
| Boxborough, . . . | Mar. 20, | 104 | 85 | 6 | 69 | 5 | 97 | 82 | 71 |
| Boylston, . . . | Mar. 6, | 227 | 151 | - | 103 | - | 220 | 148 | 106 |
| Bradford,* . . . | Mar. 27, | 1,145 | 912 | 19 | 441 | 19 | 1,216 | 952 | 774 |
| Braintree, . . . | Mar. 6, | 1,354 | 1,070 | - | 653 | - | 1,446 | 1,096 | 898 |
| Brewster, . . . | Mar. 6, | 263 | 281 | 8 | 158 | - | 266 | 280 | 141 |
| Bridgewater,* . . . | Mar. 6, | 1,064 | 887 | - | 536 | - | 1,072 | 870 | 698 |
| Brimfield, . . . | Apr. 3, | 277 | 229 | - | 109 | - | 272 | 220 | 164 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| Towns. | Date of Election, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|-------------------|-------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | | Male. | Fe- male. | Male. | Fe- male. | | | |
| Brookline,* | Apr. 1, | 3,696 | 2,389 | 196 | 1,295 | 18 | 3,696 | 2,658 | 2,060 |
| Buckland, | Mar. 7, | 445 | 389 | - | 256 | - | 458 | 382 | 304 |
| Burlington, | Mar. 27, | 177 | 120 | 1 | 75 | - | 171 | 130 | 87 |
| Canton,* | Apr. 3, | 1,226 | 975 | - | 726 | - | 1,318 | 977 | 813 |
| Carlisle,* | Mar. 20, | 138 | 116 | 1 | 87 | - | 139 | 116 | 84 |
| Carver, | Mar. 27, | 237 | 206 | - | 105 | - | 240 | 204 | 128 |
| Charlemont, | Mar. 6, | 277 | 262 | - | 149 | - | 311 | 260 | 183 |
| Charlton, | Apr. 3, | 541 | 442 | 27 | 302 | 25 | 550 | 442 | 355 |
| Chatham, | Feb. 6, | 564 | 536 | 66 | 329 | 40 | 503 | 533 | 332 |
| Cheshire,* | Mar. 20, | 348 | 268 | - | 190 | - | 331 | 252 | 202 |
| Chester,* | Mar. 27, | 455 | 357 | - | 204 | - | 400 | 344 | 258 |
| Chesterfield, | Mar. 6, | 177 | 176 | - | 96 | - | 168 | 175 | 129 |
| Chilmark, | Mar. 13, | 117 | 114 | 1 | 46 | 1 | 109 | 113 | 76 |
| Clarksburg, | Apr. 17, | 213 | 155 | - | 115 | - | 231 | 157 | 131 |
| Clinton,* | Mar. 6, | 2,853 | 2,137 | 56 | 1,993 | 11 | 3,044 | 2,223 | 2,045 |
| Cohasset, | Mar. 6, | 625 | 508 | 6 | 179 | 1 | 640 | 505 | 316 |
| Colrain, | Mar. 6, | 355 | 311 | - | 169 | - | 407 | 313 | 247 |
| Conway,* | Mar. 6, | 350 | 316 | 6 | 166 | 2 | 372 | 319 | 245 |
| Cottage City, | Mar. 13, | 263 | 221 | 4 | 185 | 3 | 268 | 215 | 167 |
| Cummington,* | Mar. 6, | 202 | 214 | 37 | 156 | 18 | 201 | 213 | 162 |
| Dalton,* | Mar. 20, | 718 | 607 | - | 462 | - | 713 | 601 | 481 |
| Dana, | Mar. 6, | 209 | 162 | - | 96 | - | 189 | 161 | 116 |
| Danvers,* | Mar. 6, | 1,972 | 1,711 | 15 | 1,020 | 3 | 2,104 | 1,775 | 1,400 |
| Dartmouth, | Apr. 3, | 804 | 608 | 1 | 391 | 1 | 748 | 613 | 339 |
| Dedham,* | Mar. 6, | 1,916 | 1,510 | 56 | 1,078 | 32 | 2,054 | 1,534 | 1,298 |
| Dennis, | Feb. 13, | 805 | 776 | - | 273 | - | 798 | 767 | 405 |
| Dighton, | Mar. 6, | 471 | 401 | - | 165 | - | 453 | 396 | 286 |
| Douglas,* | Mar. 20, | 530 | 444 | 73 | 365 | 73 | 538 | 465 | 371 |
| Dover,* | Mar. 6, | 183 | 149 | 14 | 86 | 2 | 183 | 147 | 109 |
| Dracut, | Mar. 6, | 633 | 435 | - | 360 | - | 570 | 452 | 387 |
| Dudley,* | Apr. 3, | 714 | 456 | - | 297 | - | 698 | 457 | 367 |
| Dunstable,* | Apr. 3, | 128 | 113 | 9 | 79 | 6 | 125 | 109 | 92 |
| Duxbury, | Mar. 6, | 511 | 431 | - | 149 | - | 511 | 445 | 324 |
| East Bridgewater, | Mar. 6, | 880 | 723 | - | 229 | - | 884 | 734 | 534 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|--------------------|---|--------------------|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | Date of Election, 1893. | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| Eastham, . . . | Feb. 20, | 166 | 151 | 4 | 35 | - | 162 | 146 | 100 |
| Easthampton,* . . | Mar. 13, | 1,048 | 825 | - | 723 | - | 1,080 | 835 | 741 |
| Easton, . . . | Mar. 6, | 1,311 | 1,035 | - | 573 | - | 1,345 | 1,071 | 902 |
| Edgartown, . . . | Mar. 13, | 350 | 316 | - | 86 | - | 360 | 303 | 219 |
| Egremont, . . . | Mar. 20, | 234 | 226 | - | 163 | - | 237 | 223 | 182 |
| Enfield,* . . . | Mar. 20, | 290 | 224 | 2 | 173 | 2 | 309 | 244 | 207 |
| Essex, . . . | Mar. 13, | 487 | 475 | - | 235 | - | 486 | 449 | 330 |
| Fairhaven,* . . . | Mar. 6, | 524 | 648 | 3 | 398 | - | 510 | 563 | 371 |
| Falmouth,* . . . | Mar. 7, | 778 | 663 | 6 | 394 | - | 776 | 617 | 431 |
| Florida, . . . | Mar. 4, | 165 | 78 | - | 48 | - | 97 | 76 | 68 |
| Foxborough,* . . . | Mar. 6, | 787 | 664 | 13 | 434 | - | 811 | 681 | 513 |
| Franklin,* . . . | Mar. 6, | 1,412 | 992 | - | 669 | - | 1,318 | 962 | 794 |
| Gay Head, . . . | Mar. 6, | 26 | 27 | 1 | 18 | - | 23 | 15 | 15 |
| Georgetown, . . . | Mar. 6, | 657 | 580 | 38 | 241 | 33 | 603 | 581 | 453 |
| Goshen, . . . | Mar. 6, | 77 | 78 | - | 37 | - | 81 | 76 | 63 |
| Gosnold, . . . | Mar. 13, | 43 | 31 | - | 18 | - | 40 | 33 | 20 |
| Grafton,* . . . | Mar. 6, | 1,275 | 858 | 30 | 601 | 30 | 1,251 | 814 | 660 |
| Granby, . . . | Mar. 20, | 202 | 168 | - | 95 | - | 217 | 161 | 111 |
| Granville, . . . | Mar. 20, | 259 | 251 | 1 | 167 | 1 | 259 | 223 | 134 |
| Greenfield,* . . . | Apr. 3, | 1,693 | 1,390 | - | 1,008 | - | 1,781 | 1,390 | 1,182 |
| Greenwich,* . . . | Mar. 13, | 150 | 139 | - | 100 | - | 141 | 129 | 96 |
| Groton,* . . . | Apr. 3, | 569 | 458 | 55 | 276 | 7 | 550 | 440 | 341 |
| Groveland,* . . . | Mar. 20, | 618 | 533 | - | 290 | - | 616 | 543 | 382 |
| Hadley, . . . | Mar. 6, | 490 | 370 | - | 211 | - | 503 | 364 | 292 |
| Halifax, . . . | Mar. 6, | 138 | 121 | - | 55 | - | 142 | 120 | 91 |
| Hamilton, . . . | Mar. 14, | 260 | 221 | 23 | 149 | 21 | 286 | 227 | 165 |
| Hampden, . . . | Apr. 3, | 203 | 176 | 8 | 127 | 2 | 206 | 173 | 110 |
| Hancock, . . . | Mar. 6, | 128 | 100 | - | 82 | - | 120 | 94 | 77 |
| Hanover,* . . . | Mar. 6, | 578 | 492 | 3 | 244 | 2 | 566 | 502 | 387 |
| Hanson, . . . | Mar. 6, | 408 | 320 | 12 | 140 | 4 | 399 | 326 | 221 |
| Harvard, . . . | Mar. 6, | 309 | 252 | - | 80 | - | 317 | 249 | 175 |
| Harwich,* . . . | Feb. 6, | 876 | 689 | 1 | 452 | 1 | 746 | 670 | 417 |
| Hatfield, . . . | Mar. 20, | 424 | 298 | - | 159 | - | 458 | 302 | 225 |
| Hawley, . . . | Mar. 6, | 157 | 145 | - | 68 | - | 158 | 152 | 87 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| TOWNS. | Date of Election, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (Nov. 7, 1893). | | |
|---------------------|-------------------------------|---|-----------------------|--------------|-------|-----------------------|-------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. | Male. |
| Heath, . . . | Mar. 6, | 144 | 123 | - | 75 | - | 138 | 120 | 89 | |
| Hingham, . . . | Mar. 13, | 1,224 | 1,010 | - | 415 | - | 1,206 | 999 | 794 | |
| Hinsdale,* . . . | Apr. 3, | 438 | 329 | - | 282 | - | 435 | 329 | 297 | |
| Holbrook,* . . . | Mar. 6, | 697 | 569 | - | 383 | - | 674 | 584 | 511 | |
| Holden,* . . . | Mar. 20, | 646 | 405 | 8 | 199 | 6 | 661 | 385 | 263 | |
| Holland, . . . | Apr. 3, | 51 | 52 | - | 37 | - | 47 | 47 | 35 | |
| Holliston,* . . . | Mar. 6, | 903 | 718 | 37 | 529 | 28 | 902 | 748 | 652 | |
| Hopedale, . . . | Mar. 6, | 399 | 304 | - | 79 | - | 413 | 293 | 263 | |
| Hopkinton,* . . . | Mar. 6, | 1,098 | 907 | - | 655 | - | 1,042 | 923 | 836 | |
| Hubbardston, . . . | Mar. 6, | 391 | 307 | 1 | 152 | - | 358 | 291 | 230 | |
| Hudson,* . . . | Mar. 6, | 1,433 | 1,038 | 37 | 785 | 2 | 1,559 | 1,090 | 927 | |
| Hull, . . . | Mar. 6, | 259 | 222 | 55 | 156 | 45 | 242 | 221 | 114 | |
| Huntington,* . . . | Apr. 17, | 281 | 281 | 15 | 238 | 6 | 348 | 270 | 227 | |
| Hyde Park,* . . . | Mar. 6, | 3,006 | 2,110 | 176 | 1,394 | 76 | 2,700 | 2,138 | 1,782 | |
| Ipswich,* . . . | Mar. 6, | 1,014 | 883 | 3 | 618 | - | 1,012 | 893 | 693 | |
| Kington, . . . | Mar. 6, | 488 | 410 | 17 | 180 | 5 | 498 | 422 | 327 | |
| Lakeville, . . . | Mar. 20, | 247 | 186 | - | 93 | - | 248 | 184 | 132 | |
| Lancaster, . . . | Mar. 20, | 479 | 406 | 3 | 179 | 3 | 493 | 423 | 315 | |
| Lanesborough, . . . | Apr. 3, | 278 | 227 | - | 144 | - | 277 | 228 | 165 | |
| Lee,* . . . | Apr. 3, | 1,088 | 845 | - | 661 | - | 1,027 | 832 | 643 | |
| Lenox, . . . | Apr. 3, | 628 | 489 | - | 337 | - | 784 | 512 | 330 | |
| Leominster,* . . . | Apr. 3, | 2,379 | 1,862 | 35 | 1,315 | 30 | 2,515 | 1,891 | 1,602 | |
| Leverett, . . . | Mar. 6, | 323 | 188 | - | 92 | - | 231 | 193 | 123 | |
| Lexington,* . . . | Mar. 6, | 993 | 688 | 46 | 387 | 4 | 984 | 683 | 535 | |
| Leyden, . . . | Mar. 6, | 104 | 106 | - | 86 | - | 96 | 98 | 80 | |
| Lincoln, . . . | Mar. 6, | 289 | 180 | 2 | 133 | - | 291 | 187 | 138 | |
| Littleton, . . . | Mar. 27, | 326 | 224 | - | 129 | - | 335 | 236 | 182 | |
| Ludlow, . . . | Mar. 13, | 486 | 322 | - | 179 | - | 583 | 327 | 265 | |
| Lunenburg, . . . | Mar. 6, | 349 | 268 | - | 162 | - | 359 | 267 | 198 | |
| Lynnfield, . . . | Mar. 13, | 216 | 191 | - | 111 | - | 220 | 191 | 142 | |
| Manchester, . . . | Mar. 13, | 478 | 411 | 1 | 273 | 1 | 499 | 409 | 317 | |
| Mansfield, . . . | Mar. 20, | 929 | 705 | 44 | 410 | - | 897 | 725 | 541 | |
| Marblehead,* . . . | Mar. 27, | 2,339 | 2,037 | 32 | 1,704 | 23 | 2,402 | 2,050 | 1,717 | |
| Marion, . . . | Mar. 6, | 230 | 225 | 1 | 141 | 1 | 231 | 219 | 158 | |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS. | Date of Election, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|----------------------|-------------------------|---|--------------------|--------------|--------------------|--------------|-----------------------------------|----------------------------|-------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Person who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| Marshfield, . . . | Mar. 6, | 477 | 431 | - | 218 | - | 479 | 438 | 266 |
| Mashpee, . . . | Mar. 6, | 86 | 86 | 10 | 62 | 4 | 85 | 84 | 59 |
| Mattapoisett,* . . | Mar. 6, | 274 | 276 | 57 | 198 | 15 | 273 | 276 | 224 |
| Maynard,* . . . | Mar. 12, | 708 | 555 | 41 | 491 | 28 | 830 | 560 | 494 |
| Medfield,* . . . | Mar. 6, | 445 | 362 | 11 | 245 | 3 | 454 | 357 | 283 |
| Medway,* . . . | Mar. 6, | 737 | 705 | 15 | 501 | 5 | 820 | 700 | 536 |
| Mendon, . . . | Mar. 6, | 239 | 223 | 3 | 58 | - | 234 | 208 | 155 |
| Merrimac,* . . . | Mar. 6, | 751 | 596 | 4 | 351 | 1 | 798 | 609 | 519 |
| Methuen,* . . . | Mar. 6, | 1,357 | 900 | - | 769 | - | 1,381 | 1,003 | 838 |
| Middlefield,* . . . | Mar. 6, | 109 | 83 | 10 | 51 | 6 | 115 | 80 | 52 |
| Middleton, . . . | Mar. 6, | 255 | 171 | 2 | 68 | - | 248 | 172 | 112 |
| Milford,* . . . | Mar. 6, | 2,776 | 2,118 | 348 | 1,774 | 320 | 2,904 | 2,035 | 1,714 |
| Millbury,* . . . | Mar. 20, | 1,124 | 740 | 8 | 627 | - | 1,132 | 749 | 669 |
| Millis, . . . | Apr. 10, | 402 | 236 | 5 | 202 | 2 | 607 | 227 | 188 |
| Milton,* . . . | Mar. 6, | 1,167 | 867 | 23 | 492 | 6 | 1,260 | 917 | 721 |
| Monroe, . . . | Apr. 14, | 98 | 51 | - | 51 | - | 98 | 53 | 36 |
| Monson,* . . . | Apr. 3, | 967 | 723 | - | 559 | - | 1,087 | 736 | 607 |
| Monterey, . . . | Mar. 6, | 132 | 123 | - | 79 | - | 128 | 118 | 84 |
| Montgomery, . . . | Apr. 3, | 78 | 78 | - | 45 | - | 76 | 77 | 44 |
| Mount Washington, . | Mar. 27, | 32 | 30 | 3 | 19 | - | 31 | 30 | 25 |
| Nahant, . . . | Mar. 18, | 201 | 191 | 11 | 138 | 9 | 208 | 195 | 157 |
| Nantucket,* . . . | Mar. 1, | 901 | 868 | 26 | 549 | 10 | 871 | 838 | 583 |
| Needham,* . . . | Mar. 6, | 965 | 639 | 61 | 410 | 34 | 1,034 | 660 | 524 |
| New Ashford, . . . | Apr. 3, | 35 | 35 | - | 28 | - | 36 | 35 | 30 |
| New Braintree, . . | Mar. 6, | 181 | 124 | - | 81 | - | 173 | 118 | 92 |
| Newbury, . . . | Mar. 7, | 398 | 369 | - | 185 | - | 417 | 382 | 260 |
| New Marlborough, . | Mar. 20, | 352 | 295 | 10 | 184 | - | 347 | 284 | 220 |
| New Salem, . . . | Mar. 6, | 219 | 183 | 5 | 67 | 1 | 197 | 190 | 113 |
| Norfolk,* . . . | Mar. 6, | 225 | 151 | - | 82 | - | 244 | 149 | 108 |
| North Adams,* . . | Apr. 11, | 4,453 | 3,435 | 70 | 2,329 | 50 | 5,038 | 3,310 | 2,597 |
| North Attleborough,* | Mar. 13, | 1,740 | 1,405 | - | 1,032 | - | 1,660 | 1,397 | 1,024 |
| Northborough,* . . | Mar. 6, | 523 | 339 | 4 | 163 | - | 523 | 342 | 297 |
| Northbridge, . . . | Apr. 3, | 1,231 | 758 | 1 | 387 | 1 | 1,449 | 799 | 685 |
| North Brookfield,* | Apr. 3, | 1,216 | 936 | 39 | 727 | 8 | 1,200 | 938 | 831 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| TOWNS. | Date of Elec- tion, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|--------------------|------------------------------------|---|-----------------------|--------------|-----------------------|--------------|-------------------------|-----------------------------------|--------------------------|--|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. | |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. | |
| Northfield, . . . | Mar. 6, | 449 | 396 | - | 131 | - | 414 | 399 | 284 | |
| North Reading, . . | Mar. 6, | 241 | 194 | - | 77 | - | 242 | 195 | 152 | |
| Norton, . . . | Mar. 6, | 412 | 350 | - | 207 | - | 393 | 345 | 207 | |
| Norwell, . . . | Mar. 6, | 473 | 411 | - | 147 | - | 519 | 416 | 293 | |
| Norwood,* . . . | Mar. 6, | 1,082 | 914 | 48 | 641 | - | 1,207 | 938 | 757 | |
| Oakham,* . . . | Mar. 6, | 208 | 164 | - | 105 | - | 190 | 161 | 116 | |
| Orange, . . . | Mar. 6, | 1,700 | 1,242 | 30 | 684 | 16 | 1,718 | 1,247 | 1,046 | |
| Orleans, . . . | Feb. 6, | 367 | 316 | 11 | 75 | 1 | 357 | 312 | 239 | |
| Otis, . . . | Mar. 6, | 155 | 146 | - | 91 | - | 150 | 149 | 99 | |
| Oxford, . . . | Apr. 3, | 693 | 542 | - | 350 | - | 712 | 543 | 383 | |
| Paxton,* . . . | Mar. 6, | 133 | 110 | - | 68 | - | 135 | 108 | 88 | |
| Pelham, . . . | Mar. 13, | 122 | 116 | 6 | 62 | 3 | 124 | 115 | 76 | |
| Pembroke, . . . | Mar. 6, | 399 | 314 | - | 149 | - | 408 | 318 | 193 | |
| Pepperell, . . . | Mar. 20, | 1,018 | 725 | - | 489 | - | 1,030 | 734 | 540 | |
| Peru, . . . | Mar. 6, | 77 | 71 | - | 52 | - | 77 | 72 | 67 | |
| Petersham, . . . | Mar. 6, | 320 | 234 | 9 | 133 | 3 | 273 | 235 | 195 | |
| Phillipston, . . . | Mar. 6, | 133 | 98 | - | 65 | - | 126 | 101 | 88 | |
| Plainfield, . . . | Mar. 6, | 137 | 136 | 2 | 99 | - | 127 | 127 | 101 | |
| Plymouth,* . . . | Mar. 6, | 2,130 | 1,670 | 134 | 930 | 85 | 2,240 | 1,682 | 1,360 | |
| Plympton, . . . | Mar. 6, | 171 | 160 | - | 79 | - | 174 | 152 | 108 | |
| Prescott, . . . | Apr. 3, | 126 | 103 | - | 41 | - | 128 | 103 | 57 | |
| Princeton, . . . | Mar. 6, | 310 | 218 | - | 72 | - | 300 | 218 | 163 | |
| Provincetown,* . . | Feb. 13, | 1,356 | 778 | - | 549 | - | 1,371 | 762 | 562 | |
| Randolph,* . . . | Mar. 6, | 1,133 | 971 | - | 709 | - | 1,172 | 929 | 785 | |
| Raynham, . . . | Mar. 13, | 388 | 324 | 11 | 92 | 4 | 403 | 319 | 208 | |
| Reading, . . . | Mar. 6, | 1,091 | 941 | 9 | 422 | 2 | 1,221 | 932 | 769 | |
| Rehoboth, . . . | Mar. 6, | 465 | 409 | - | 272 | - | 456 | 383 | 186 | |
| Richmond, . . . | Mar. 27, | 189 | 154 | - | 57 | - | 181 | 147 | 83 | |
| Rochester, . . . | Mar. 6, | 217 | 200 | - | 127 | - | 213 | 195 | 137 | |
| Rockport, . . . | Mar. 6, | 1,104 | 798 | 8 | 409 | - | 1,129 | 835 | 545 | |
| Rowe, . . . | Mar. 6, | 169 | 97 | - | 64 | - | 169 | 99 | 76 | |
| Rowley, . . . | Mar. 13, | 397 | 342 | 1 | 156 | - | 398 | 354 | 306 | |
| Russell,* . . . | Mar. 6, | 250 | 170 | - | 113 | - | 241 | 166 | 123 | |
| Rutland, . . . | Mar. 6, | 285 | 225 | 4 | 150 | 4 | 278 | 227 | 150 | |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS—Continued.

| TOWNS. | Date of Elec- tion, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|----------------------|------------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| Salisbury, . . . | Mar. 14, | 380 | 374 | 6 | 197 | 5 | 368 | 373 | 297 |
| Sandisfield, . . . | Apr. 3, | 348 | 196 | - | 105 | - | 218 | 196 | 131 |
| Sandwich,* . . . | Mar. 6, | 432 | 424 | 8 | 301 | 4 | 409 | 431 | 346 |
| Saugus,* . . . | Mar. 13, | 1,161 | 924 | - | 662 | - | 1,218 | 952 | 774 |
| Savoy, . . . | Mar. 6, | 181 | 151 | - | 67 | - | 156 | 137 | 96 |
| Scituate, . . . | Mar. 6, | 640 | 551 | - | 365 | - | 640 | 534 | 329 |
| Seekonk, . . . | Mar. 6, | 325 | 242 | - | 98 | - | 318 | 268 | 142 |
| Sharon, . . . | Mar. 6, | 405 | 388 | 56 | 230 | 47 | 405 | 326 | 254 |
| Sheffield,* . . . | Mar. 27, | 489 | 412 | 1 | 325 | - | 476 | 414 | 346 |
| Shelburne, . . . | Mar. 8, | 381 | 335 | 13 | 144 | 9 | 407 | 389 | 320 |
| Sherborn,* . . . | Mar. 6, | 282 | 225 | - | 113 | - | 263 | 214 | 161 |
| Shirley,* . . . | Mar. 13, | 329 | 256 | 4 | 183 | 3 | 317 | 256 | 199 |
| Shrewsbury, . . . | Mar. 6, | 389 | 313 | - | 170 | - | 398 | 323 | 265 |
| Shutesbury, . . . | Apr. 3, | 120 | 116 | 2 | 92 | 1 | 117 | 110 | 81 |
| Southampton, . . . | Mar. 20, | 269 | 223 | - | 74 | - | 265 | 217 | 167 |
| Southborough,* . . . | Mar. 6, | 605 | 384 | 5 | 163 | - | 549 | 393 | 301 |
| Southbridge,* . . . | Apr. 3, | 1,652 | 1,263 | 132 | 998 | 108 | 1,479 | 1,239 | 1,031 |
| South Hadley,* . . . | Mar. 20, | 1,047 | 666 | 108 | 521 | 107 | 1,355 | 703 | 586 |
| Southwick,* . . . | Apr. 3, | 266 | 248 | 17 | 215 | 11 | 268 | 249 | 202 |
| Spencer,* . . . | Apr. 3, | 2,198 | 1,523 | - | 1,145 | - | 2,290 | 1,548 | 1,306 |
| Sterling, . . . | Mar. 20, | 391 | 325 | 33 | 188 | 2 | 367 | 323 | 253 |
| Stockbridge,* . . . | Apr. 3, | 523 | 472 | - | 318 | - | 487 | 458 | 304 |
| Stoneham,* . . . | Mar. 6, | 1,842 | 1,627 | 36 | 1,108 | 2 | 1,957 | 1,652 | 1,336 |
| Stoughton,* . . . | Mar. 13, | 1,473 | 1,187 | 56 | 705 | 7 | 1,505 | 1,196 | 980 |
| Stow, . . . | Mar. 6, | 271 | 219 | - | 90 | - | 272 | 210 | 161 |
| Sturbridge, . . . | Apr. 3, | 500 | 363 | - | 182 | - | 476 | 347 | 282 |
| Sudbury, . . . | Mar. 6, | 368 | 264 | - | 159 | - | 367 | 261 | 198 |
| Sunderland, . . . | Mar. 6, | 215 | 164 | 1 | 104 | 1 | 230 | 166 | 150 |
| Sutton,* . . . | Apr. 3, | 685 | 483 | - | 306 | - | 637 | 440 | 317 |
| Swampscott,* . . . | Mar. 20, | 713 | 704 | 6 | 500 | 2 | 797 | 728 | 535 |
| Swansey, . . . | Mar. 6, | 429 | 355 | - | 140 | - | 423 | 344 | 213 |
| Tewksbury, . . . | Mar. 6, | 489 | 327 | - | 155 | - | 529 | 322 | 250 |
| Tisbury, . . . | Mar. 20, | 307 | 263 | 9 | 161 | 4 | 301 | 256 | 197 |
| Tolland, . . . | Mar. 6, | 91 | 78 | - | 39 | - | 85 | 74 | 35 |

* Town officers nominated and elected under the Election Act of 1893.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.

| TOWNS. | Date of Election, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (Nov. 7, 1893). | | |
|------------------------|-------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|---------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters | Persons who voted. |
| | | | Male. | Fe- male. | Male. | Fe- male. | | | |
| Topsfield, . . . | Mar. 6, | 279 | 245 | - | 93 | - | 276 | 259 | 175 |
| Townsend, . . . | Apr. 3, | 532 | 463 | 15 | 206 | 11 | 516 | 455 | 390 |
| Tyngsborough,* . . | Apr. 3, | 176 | 142 | 2 | 109 | 2 | 174 | 134 | 105 |
| Tyringham, . . . | Apr. 4, | 109 | 112 | - | 91 | - | 111 | 113 | 82 |
| Upton,* . . . | Mar. 6, | 524 | 446 | - | 327 | - | 505 | 449 | 393 |
| Uxbridge,* . . . | Mar. 6, | 1,041 | 702 | 13 | 584 | 5 | 1,079 | 692 | 627 |
| Wakefield,* . . . | Mar. 6, | 2,212 | 1,662 | 86 | 957 | 29 | 2,219 | 1,668 | 1,385 |
| Wales, . . . | Apr. 3, | 239 | 151 | - | 107 | - | 206 | 156 | 131 |
| Walpole,* . . . | Mar. 6, | 770 | 554 | 10 | 342 | - | 798 | 572 | 450 |
| Ware,* . . . | Mar. 27, | 1,763 | 1,125 | - | 963 | - | 1,732 | 1,192 | 1,067 |
| Wareham,* . . . | Mar. 27, | 739 | 663 | 3 | 313 | 1 | 690 | 646 | 393 |
| Warwick, . . . | Mar. 6, | 178 | 124 | - | 62 | - | 169 | 123 | 97 |
| Washington, . . . | Apr. 10, | 114 | 91 | - | 56 | - | 111 | 96 | 83 |
| Webster,* . . . | Apr. 3, | 2,246 | 1,156 | - | 845 | - | 2,042 | 1,165 | 904 |
| Wellesley,* . . . | Mar. 6, | 802 | 561 | 55 | 331 | 8 | 822 | 582 | 495 |
| Wellfleet, . . . | Feb. 6, | 334 | 300 | 1 | 110 | 1 | 307 | 281 | 190 |
| Wendell, . . . | Mar. 6, | 151 | 128 | - | 102 | - | 156 | 112 | 78 |
| Wenham, . . . | Mar. 6, | 274 | 235 | 2 | 124 | - | 265 | 237 | 174 |
| Westborough,* . . . | Mar. 6, | 1,394 | 1,071 | 15 | 781 | - | 1,323 | 1,067 | 906 |
| West Boylston, . . . | Mar. 27, | 726 | 416 | - | 285 | • | 752 | 438 | 330 |
| West Bridgewater, . . | Mar. 6, | 497 | 411 | 4 | 147 | 3 | 498 | 425 | 294 |
| West Brookfield,* . . | Apr. 3, | 430 | 383 | 1 | 146 | - | 409 | 383 | 323 |
| Westfield,* . . . | Mar. 13, | 2,910 | 2,505 | 97 | 1,809 | 68 | 2,832 | 2,413 | 1,970 |
| Westford,* . . . | Mar. 20, | 602 | 428 | - | 192 | - | 628 | 441 | 390 |
| Westhampton, . . . | Mar. 27, | 117 | 111 | - | 59 | - | 112 | 111 | 89 |
| Westminster, . . . | Mar. 6, | 478 | 369 | 4 | 180 | 1 | 437 | 361 | 285 |
| West Newbury, . . . | Mar. 6, | 519 | 448 | - | 178 | - | 539 | 445 | 333 |
| Weston, . . . | Mar. 27, | 536 | 352 | - | 182 | - | 515 | 342 | 233 |
| Westport, . . . | Mar. 13, | 677 | 503 | 60 | 236 | 18 | 654 | 501 | 297 |
| West Stockbridge,* . . | Apr. 3, | 431 | 319 | - | 194 | - | 387 | 317 | 237 |
| West Tisbury, . . . | Mar. 21, | 164 | 153 | - | 83 | - | 165 | 152 | 106 |
| Whately, . . . | Mar. 6, | 267 | 230 | 15 | 126 | 10 | 259 | 229 | 174 |
| Whitman,* . . . | Mar. 6, | 1,660 | 1,320 | - | 706 | - | 1,881 | 1,330 | 1,095 |
| Willbraham,* . . . | Apr. 3, | 379 | 288 | - | 156 | - | 355 | 295 | 235 |

* Town officers nominated and elected under the Election Act of 1893.

**NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Continued.**

| TOWNS. | Date of Elec- tion, 1893. | TOWN ELECTIONS (FEBRUARY, MARCH OR APRIL, 1893). | | | | | STATE ELECTION (NOV. 7, 1893). | | |
|------------------|------------------------------------|---|-----------------------|--------------|-----------------------|--------------|-----------------------------------|----------------------------|--------------------------|
| | | Assessed Polls. | Registered Voters. | | Persons who voted. | | As- sessed Polls. | Regis- tered Voters. | Persons who voted. |
| | | Male. | Male. | Fe- male. | Male. | Fe- male. | Male. | Male. | Male. |
| Williamsburg,* . | Mar. 6, | 503 | 437 | 10 | 326 | 8 | 480 | 447 | 399 |
| Williamstown,* . | Mar. 27, | 973 | 802 | 7 | 647 | 3 | 1,028 | 778 | 585 |
| Wilmington,* . . | Mar. 6, | 347 | 232 | - | 153 | - | 361 | 248 | 195 |
| Winchendon, . . | Mar. 6, | 1,299 | 928 | - | 426 | - | 1,310 | 918 | 799 |
| Winchester,* . . | Mar. 27, | 1,323 | 1,139 | 24 | 651 | 4 | 1,443 | 1,120 | 973 |
| Windsor, | Mar. 6, | 145 | 147 | - | 64 | - | 145 | 139 | 87 |
| Winthrop,* . . . | Mar. 6, | 785 | 614 | 23 | 392 | 12 | 867 | 617 | 489 |
| Worthington, . . | Mar. 6, | 190 | 176 | - | 86 | - | 194 | 174 | 136 |
| Wrentham, . . . | Mar. 20, | 694 | 547 | 1 | 224 | - | 720 | 549 | 397 |
| Yarmouth,* . . . | Feb. 13, | 539 | 509 | - | 277 | - | 524 | 501 | 369 |
| 282 Towns, . . . | - | 180,342 | 141,664 | 3,464 | 89,650 | 1,821 | 183,356 | 141,924 | 111,098 |

* Town officers nominated and elected under the Election Act of 1893.

RECAPITULATION.

NUMBER OF ASSESSED POLLS, REGISTERED VOTERS AND PERSONS WHO
VOTED AT ELECTIONS — Concluded.

| CITIES, TOWNS AND STATE. | STATE ELECTION, 1893. | | | CITY AND TOWN ELECTIONS, 1893. | | | | |
|-----------------------------|-------------------------|----------------------------|--------------------------|--------------------------------|-----------------------|---------|-----------------------|---------|
| | As- sessed Polls. | Regis- tered Voters. | Persons who Voted. | As- sessed Polls. | Registered Voters. | | Persons who Voted. | |
| | Male. | Male. | Male. | Male. | Male. | Female. | Male. | Female. |
| 30 Cities, | 445,658 | 271,853 | 229,138 | 448,024 | 277,900 | 19,915 | 224,489 | 16,489 |
| 322 Towns, | 239,145 | 183,402 | 145,430 | 235,719 | 182,761 | 4,244 | 116,105 | 2,149 |
| State, | 684,803 | 454,755 | 374,568 | 683,743 | 460,751 | 24,159 | 340,594 | 18,638 |
| CITIES, TOWNS AND STATE. | STATE ELECTION, 1892. | | | CITY AND TOWN ELECTIONS, 1892. | | | | |
| | As- sessed Polls. | Regis- tered Voters. | Persons who Voted. | As- sessed Polls. | Registered Voters. | | Persons who Voted. | |
| | Male. | Male. | Male. | Male. | Male. | Female. | Male. | Female. |
| State, | 663,482 | 452,435 | 405,867 | 659,010 | 437,109 | 18,158 | 324,615 | 14,191 |

*Total Number of Registered Voters at the close of the last Registra-
tion in the several Cities and Towns.*

| MALE. | | FEMALE. | |
|---------|---------|---------|--------|
| 1892. | 1893. | 1892. | 1893. |
| 454,190 | 461,392 | 18,158 | 24,159 |

PUBLIC DOCUMENT

. . . . No. 25.

REPORT OF THE COMMISSIONERS

ON

INLAND FISHERIES AND GAME

FOR THE

YEAR ENDING DECEMBER 31, 1893.

BOSTON :
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1894.

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Commonwealth of Massachusetts.

To His Excellency the Governor and Honorable Council.

The Commissioners on Inland Fisheries and Game beg leave to present their twenty-eighth annual report.

FISHWAYS.

The Commissioners were called upon to examine the fishways at East Taunton and Middleborough.

At East Taunton the fishway was found to be in a decayed condition, and will have to be rebuilt in a few years. As the owners of the dam desired to raise the water some two feet above its former level, plans were furnished for extending this fishway.

At Middleborough the freshet of last spring had carried away the posts supporting the fishway, and it was found broken in the middle and a part of it had fallen to the ground. The mudsill for sustaining the screen to prevent the fish from going up under the dam was also washed away. Directions were given for repairing the fishway, and putting in a new mudsill.

Mr. James A. Burgess, for many years fish-warden of the river, was instructed to look after the work, and on November 4, he reported : " The fishway at East Taunton has been put in thorough repair. The fishway at Sherman's mill (Middleborough) has been raised and stone piers put under it, and everything that is needed is being done for the passage of the fish next spring."

As the fisheries of Taunton Great River are largely dependent upon the efficiency of these fishways, the Commissioners have given them much attention, but this Board cannot be held responsible for the injudicious action of the town in

selling the fishing right to an irresponsible party who did not regard the regulations for the capture of fish, so that many thousands were unlawfully taken.

LAWRENCE FISHWAY.

We append the following statement from Thomas S. Holmes, who has the care of the fishway at Lawrence. His full report will be found in the Appendix.

To the Commissioners on Inland Fisheries and Game.

GENTLEMEN: — I herewith send you my report of fish seen in the Lawrence fishway. You will observe that a large number of salmon were seen passing up, this year. They were running all the season, there being almost as many in the fishway in October as in June. The run of fish generally follows the rise of the water in the river. Low water, no fish. A rise in the river, and salmon appear.

Mr. Patrick McCarthy succeeded again this year in taking a salmon with an artificial fly. Another fisherman claims that a salmon rose to his fly twice, but he did not succeed in getting the fish. This would indicate that fishermen will be rewarded with considerable sport, if they have patience to follow it up, in fishing for salmon below Lawrence.

The run of alewives was very small again this year. A few years ago they were increasing in the river.

Mr. Knowles estimates that two hundred dollars will cover all the work that would be needed on the fishway another year. This includes the change at the upper end, so that the water will not come in with so much force; caulking; removing the little dam that makes a pool at the lower end, and repairing the electric alarm.

There has been no work done on the fishway this year.

Yours truly,

THOMAS S. HOLMES, *Warden.*

We regret to learn that the salmon, which have been steadily increasing, have been stopped on their way to the headwaters by dams above and below Concord, and it is reported that many were taken at or near these dams.

We are assured by the New Hampshire Commissioners that fishways will be built there early next spring.

HATCHERY AT SUTTON.

The work at this place has been pushed forward as far as the means at our disposal would permit,

A large pond covering nearly half an acre, and capable of sustaining eight or ten thousand breeding fish, has been made by throwing a dam, seven feet high, across the stream.

The bottom of this pond is covered with mud. As the trout instinctively avoid such a place for spawning, a gravelled runway has been made at the inlet, where the fish are easily secured in the spawning season and stripped of their eggs.

Four large tanks have been built below the dam, supplied with water from the pond, which are used for retaining the large trout, and for arranging and classifying the fish during the breeding season. There are also two smaller ponds for yearlings.

A good substantial hatching-house has been built, equipped with twelve troughs, each thirteen feet long and eighteen inches wide, and 132 Brackett trays, which give a capacity for nearly 800,000 eggs. There is room in the house for six more troughs, which would make its capacity about one million. The hatching troughs or runs are supplied with pure water flowing from driven wells above the pond, and conducted in pipes to the hatchery. By this arrangement all danger from impurities or contamination from surface water is avoided, and an even temperature of the water secured.

Below the dam is an ice-house which can be filled with ice from the pond at a trifling expense. This is necessary in the transportation of the fry in the spring, and for the preservation of food for the fish in summer.

We have just completed a dwelling-house, with modern appliances, for the use of the Superintendent, and the grounds around it are partially graded.

The State owns the land upon which the works are built, and the control of all the stream desirable.

Five or six ponds are needed for rearing trout for keeping up and increasing the number of breeding fish.

During the past eighteen months we have been able to secure 1,500 breeding fish, varying from two ounces to two pounds in weight. From these we secured, this fall, over 200,000 eggs.

The number of breeders should be increased as fast as possible to not less than fifteen thousand. By reserving enough of the small fry, this can be accomplished in two years with very little expense.

To complete this plant in a manner worthy of being a State hatchery will require an additional appropriation.

The economic value of artificial hatching, as a means of supplying food, is recognized all over the world. A few statistics will indicate the progress which has been made in several localities.

New York has six hatcheries, the estimated values and annual expenses of which are given as follows :—

| | | | | |
|------------------------------|------------------|-------------|------------------|-------------|
| Adirondack hatchery, | estimated value, | \$9,500 00 | annual expenses, | \$4,518 74 |
| Caledonia hatchery, | " " | 23,500 00 | " " | 9,736 06 |
| Cold Spring Harbor hatchery, | " " | 11,100 00 | " " | 6,972 20 |
| Fulton Chain hatchery, | " " | 2,100 00 | " " | 2,748 88 |
| Sacandaga hatchery, | " " | 6,000 00 | " " | 3,357 86 |
| Chautauqua Lake hatchery, | " " | 1,250 00 | " " | - |
| | | <hr/> | | <hr/> |
| | | \$53,510 00 | | \$27,333 84 |

In summing up the results of their work the Commissioners say : " No investment the State can possibly make can be of greater importance or result in more benefit than the money spent for the artificial propagation of fish. Whatever cheapens the food of the people in this day, when wages tend to the minimum and are so near the cost of living, is to be desired, and the small amount expended each year for the artificial propagation of food fishes, is returned to the people of the State a hundred fold."

The Canadian government, with its natural wealth of fisheries, finds it necessary in order to sustain them to resort to artificial hatching, maintaining for this purpose twelve hatcheries, nine of which, with cost of maintenance, we copy from their report of 1887-8 :—

| | | | | |
|-------------------------------------|---|---|---|-------------|
| Newcastle hatchery, annual expense, | . | . | . | \$5,367 00 |
| Sandwich, " " | " | " | " | 3,513 00 |
| Restigouche, " " | " | " | " | 3,768 00 |
| Sydney, " " | " | " | " | 2,796 00 |
| Tadousac, " " | " | " | " | 1,971 00 |
| Miramichi, " " | " | " | " | 1,347 00 |
| Bedford, " " | " | " | " | 3,904 00 |
| Gaspé, " " | " | " | " | 2,164 00 |
| Dunk River, " " | " | " | " | 1,260 00 |
| Superintendent's salary, | . | . | . | 1,780 00 |
| Total, | . | . | . | <hr/> |
| | | | | \$27,850 00 |

In speaking of the results at the Bedford hatchery, Mr. A. B. Wilmot says : — “ Where there has been an outlay of \$2,000 we have received a return of \$10,000, or five dollars for every one expended.”

The State of New Hampshire, with a population and wealth less than the City of Boston, has nine hatcheries, and the last Legislature made an appropriation for two more.

Massachusetts, the first State in the Union to take action in the artificial propagation of fish, has only one (as yet uncompleted) State hatchery; one-half ownership in the works at Plymouth, N. H., and a cheap arrangement at Winchester for developing and hatching eggs taken elsewhere. We recommend the establishment of a hatchery in one of our western counties. It would be desirable as being in the center of a large distributive territory, and would be an efficient adjunct to our present facilities.

PLYMOUTH (N. H.) HATCHERY.

To the Commissioners of Fish and Game for the Commonwealth of Massachusetts.

GENTLEMEN : — I herewith submit my annual report of the work done at this station for the year ending Dec. 1, 1893.

The salmon eggs were taken and young fry planted as usual in the Pemigewasset River.

Of the brook trout eggs taken, 348,000 were sent to Winchester, and 75,000 to Wilkinsonville, Mass., making 423,000 (one-half of the whole number) sent to Massachusetts.

Extensive repairs have been made at the hatchery grounds. New tanks have been built for the breeding trout, and a close, high fence encloses both tanks and ponds. Many trout were lost during the winter, owing to the depredations of mink, but everything will be made secure before another winter.

On account of the severe winter drought, there was a great loss of trout in the streams, and owing to the scarcity occasioned thereby, no addition was made to the stock of breeding trout in the ponds.

Respectfully yours,

E. B. HODGE, *Superintendent.*

PLYMOUTH, N. H., Dec. 1, 1893.

The eggs received from the Joint hatchery last January were more or less defective, and consequently there was considerable loss in hatching. A list of the distribution will be found in the Appendix.

Massachusetts' share of eggs for 1894 will be less than for 1893, but the deficiency will be more than made up by the 200,000 taken at Sutton.

Near the close of the session of the New Hampshire Legislature last spring there appeared in one of the papers of that State an unfriendly and unwarranted attack on the joint relations between the two States, which led to the appointment of a committee to investigate the matter, and report to their governor and council.

By request your Commissioners appeared before this committee and gave a detailed statement of the relations between the States. There was not and never had been one particle of evidence to warrant the attack, and the author of it was conspicuous by his absence from the hearing.

Your Commissioners felt that, as a simple act of justice, they were entitled to a copy of said report of said committee, and after waiting a reasonable time, a request was made to the governor and council, which elicited the following reply :—

STATE OF NEW HAMPSHIRE.

OFFICE OF SECRETARY OF STATE, CONCORD, Aug. 1, 1893.

HON. E. A. BRACKETT, —

DEAR SIR :—The Governor refers your letter. I am exceedingly sorry I cannot send you a report. I am not even aware when the committee will make a report, if ever. They have answered through the press that they find nothing, and at best, or worst, it is presumed that the report will be an empty narrative, without event or finding of any point of moment.

Very respectfully,

EZRA S. STEARNS, *Secretary of State.*

It may possibly be desirable to terminate the joint ownership in the Plymouth hatchery. We therefore recommend that your Commissioners be empowered to make such arrangements with New Hampshire as may, in their judgment, be for the best interest of our State.

Experienced fish-culturists are rare. In addition to careful training, they should possess an enthusiastic love for the work, and an intuitive judgment which would enable them to meet any sudden and unexpected emergency.

There are many things connected with the hatching and

rearing of fish which, to the casual observer, might appear unimportant, the neglect of any one of which might result in the loss of the whole year's work.

REARING AND PLANTING TROUT.

All applications for trout should be made before the first of April each year, endorsed by the senator or representative of the district where the applicant wishes to plant the fry. Such endorsement is a guarantee of the good faith and standing of the party making application, and relieves the Commissioners from making further inquiry.

The trout fry are delivered free at the State hatchery, either at Sutton or Winchester, in April or May, or as soon as they are ready to be turned out. Cans for transportation are furnished, and full directions given for carrying and planting them.

In all cases applicants are required to deposit the fry at the extreme headwaters, in the springs and rills which are always found connected with good trout streams. This method of stocking has been pursued in this State for several years and has proved very successful, yielding from twenty to twenty-five per cent. of marketable fish from the number planted.

OBJECTIONS TO THIS METHOD.

Within a few years there has come to the front a theory that it is better that the fry should be kept in small ponds until they are six months or a year old before they are turned out, it being claimed that if they are put into streams as soon as the yolk sac is absorbed they will be destroyed by the larger fish. If this point is well taken then it follows that such streams must be stocked annually with yearlings, as the natural products would meet with the same fate. There may be a few streams where annual stocking with yearlings would be desirable, but they are not natural trout streams.

The objection is based on the false idea that trout eat each other. In the wild streams, where food is plenty, trout are not cannibals. They never destroy each other, except when driven to it by starvation or disease. Anglers who have been

in the habit of examining their catch to ascertain what the fish have been feeding on have rarely, if ever, found one trout inside of another. Again, the headwaters of all good trout streams are free from all fish except the young fry.

Another fact, and to us it appears to be a fatal objection to the stocking with yearlings, is that fish reared in small ponds and artificially fed lose their instinct of self-preservation.

Upon this point we speak with confidence, having tried experiments which, if not conclusive, are worthy of further investigation. Trout and land-locked salmon, fourteen months old, which had been artificially reared in a small pond, were turned into a stream connecting two large ponds. They were turned in just below a bridge, and as the day was a bright one they moved up into the shadow to avoid the sunlight. They were closely looked after, and in less than an hour most of them were inside of the perch and pickerel, and the only reason that any escaped was that the large fish were so gorged that they had no room for more. This experiment has been tried several times, and in no instance did the young trout and salmon show fear or any disposition to avoid their enemies.

It may be said that the experiment was not a fair one, and that trout and salmon do not inhabit waters infested by these fish. But it is well known that many of the lakes and ponds in Maine and New Hampshire where these fish are abundant contain both perch and pickerel. Sunapee Lake, in New Hampshire, was formerly full of red perch and pickerel and a few trout. It was stocked with black bass and subsequently with land-locked salmon in a way not likely to be repeated: a small steamer, upon whose deck was a can containing 4,000 land-locked salmon fry six weeks old, blew up in the middle of the lake and the can went to the bottom. Tons of bass have been taken from the lake and the red perch have decreased.

There are no large streams running into the lake, and the trout and salmon spawn mainly among the rocks near the shores and on the sand-bars.

The young fish hatched here retain their instinct of self-preservation, and are sufficiently wary to keep out of the

way of their enemies, to the extent that they are rapidly increasing. Trout are far more abundant than they were before the introduction of black bass. Mr. E. B. Hodge, ex-Commissioner of New Hampshire, who has carefully studied the fisheries of this lake, attributes the increase of salmon and trout to the destruction of the red perch by the black bass.

A writer in the "London Fishing Gazette" gives an account of two tanks of trout from Mr. Andrews' Guilford hatchery, which were turned into a tributary of the Thames. After describing the difficulties attending the transportation, he says: "These Guilford fish swam up and down the brook and had no fear of us whatever. It is to be hoped that before they reach the Thames they will have learned that there are dangers in this life to be avoided, and that the world is not one big stew, in which they are to look to mortals for three meals a day, regular. The fish, I should have mentioned, varied in size, from eight inches downward." We quote the above testimony, because it is in keeping with every experiment we have made in the planting of yearling trout.

EXPENSE OF REARING.

Trout fry, just ready to feed, are sold by the dealers at from three to four dollars per thousand, while those from six months to a year old command \$75 per thousand. Either the expense of rearing is considerable, or the profit is large. That the system should be advocated by those who are raising yearling trout to sell is natural enough. Mr. Andrews, a leading English fish-culturist, says: "The dealer will find his largest gain in the sale of one and two year old trout."

We have endeavored to obtain information in regard to the number or percentage of trout reared to seven months or a year old. The returns for different years vary; for some years, from 20 to 25 per cent., while for others as high as 50 and even 80 per cent. is claimed, but the average seems to be from 35 to 40 per cent. Why, in the same ponds, with the same management, it should vary so much, no one seems able to explain. There is also a great difference in the growth of the young fish; in the same pond and with the same food, some growing much faster than others.

We append the following statements from Mr. Charles G. Atkins, whose scientific and practical knowledge in fish-culture has always been a guarantee of success :

(1.) We carry but few fry through to the age of a year. The most of them are liberated in October or November. For instance, out of 200,000 fry on hand in October, we would liberate all but 12,000 or 15,000, so that the most of the fry are only retained for seven months. To that age we get sometimes (twice since 1887), less than 50 per cent. of those hatched (one year a good deal less), but those two years were years of epizooties. One year we carried through over 80 per cent. from the egg to seven months. This year we save about 72 per cent. of our Atlantic salmon and 68 per cent. of all sorts. The loss from seven to twelve months, is very slight, say not over two per cent. ; so I might say, for yearling fish, our loss would be from 20 to 50 per cent. ; that is, 50 to 80 per cent. saved.

(2.) The greatest loss during our two worst years was during the sac stage. Other years it has been the first six weeks of feeding.

(3.) We carry 250 to 400 seven months old fish in eight gallons of water a few miles by wagon in October. Those cans are 16 inches in diameter on bottom. I doubt whether 25 inches depth of water would carry any better than 15. In same cans we carried in each 200 brook trout ten months old to Vermont in winter without loss.

(4.) Loss in transportation, generally none at all. Heaviest loss this year was 27 fish on a shipment of 6,077 young fish, three months old, to Duck Lake, July 4, 50 miles by rail and 45 by wagon."

Another well-known breeder writes : " I do not think that we have heretofore averaged over 20 or 25 per cent. to the age of one year. This year, at this time (October 24), we have in our nursery about 75 per cent. of what we planted in April."

Mr. Thomas Andrews, Guilford, England, says : " After turning out a known number of fry we can recover, after twelve months, from 30 to 50 per cent., and sometimes more, of good strong yearlings. I think I should be tolerably well pleased if I could depend upon finding 50 per cent. of yearlings every year. I have recovered 85 per cent. some

years and have lost 95 per cent. in others. The greatest living authority on trout breeding, Sir James Maitland, requires from 100,000 to 200,000 fry to produce 50,000 yearlings."

The Commissioners of Michigan, in their report of the meeting of the American Fisheries Society (1892), state that "among the subjects discussed at the last meeting was that of planting fingerling trout instead of fry, and elicited much interest. On this subject papers were read by Mr. Frank N. Clark of the United States hatchery at Northville, Mr. Fred Mather of the New York commission and Mr. Herschel Whitaker of our Board. The discussion was very general. Mr. Whitaker's paper appears in the Appendix. The conclusion reached by the representatives of the states which have done most in the work, notably Wisconsin, New York, Pennsylvania and Michigan, was that in view of the unqualified success which had been hitherto attained through fry planting alone, and the greatly added expense of rearing any considerable number of trout to be yearlings before planting, it was unadvisable and impracticable, when the work was carried on upon anything like a large scale, to supplant fry planting with that of yearlings, however well it might answer as an interesting experiment on a small scale."

TRANSPORTATION.

In a can containing ten gallons of water 5,000 trout fry, six or eight weeks old, may be safely transported to any part of the State, while with trout from seven months to one year old only about 200 can be safely transported in each can any great distance.

As the railroads have kindly allowed these cans of fish to be carried in the baggage-car free of charge, the addition of ten times the number of cans for transporting less than half the number of fish might become a serious matter to the roads, and probably deprive us of the privilege we now have. So far as we know, there is as yet no evidence to prove conclusively that this mode has any advantage over the stocking with young fry, while the expense of rearing and transporting is greatly increased.

This theory is by no means new. It was tried in Scotland

more than twenty-five years ago, and condemned by that distinguished naturalist and writer on fish-culture; Frank Buckland, and others, who contended "that better results would follow if the fry were turned into the streams as soon as the yolk sac is absorbed. The same conclusion was reached in France, in regard to trout, by the Marquis de Folleville at his establishment near Rouen."

BRIEFLY STATED.

(1.) The planting of young fry at the age when they begin to feed is the most simple, direct and inexpensive method of stocking the brooks.

(2.) If, as it is claimed, the fry are destroyed by larger fish, it is evident that such a brook is not suitable for raising trout, since the same fish that destroy the planted fry would destroy the natural product of the parent fish.

(3.) Trout in the wild streams are not cannibals, and unless driven to it by starvation or disease, do not destroy each other. The headwaters of all good trout streams are entirely free from all fish except the small fry.

(4.) There is not as yet any conclusive evidence that there is any advantage in planting older fish.

(5.) The difference in the percentage of trout raised in small ponds and artificially fed and the survival of the fry planted in the streams is not sufficient to warrant the difference in expenditure.

(6.) When the ponds are sufficiently large to supply the young fish with an abundance of natural food, and where the fish can be turned directly into the stream, the objection to the expense of rearing and transportation is removed; but there still remains the fact that they have been reared in ignorance of their enemies, which in their new life may prove a serious matter. The loss or arrested development of the instinct of self-preservation is common to the lower forms of animal life when removed from natural environments and bred in confinement.

PROTECTION OF YOUNG FISH.

The law prohibiting the sale of trout less than six inches in length is well enough as far as it goes, but to be effective

it should prohibit taking and having in possession, as well as offering for sale. There can be no question that one of the most serious obstacles to the preservation of our fisheries is the destruction of the young fish, for if they were allowed to mature sufficiently to deposit their spawn, if for *one* year only, it would go a long way toward keeping up the supply. The importance of this cannot be over-estimated, for it lies at the foundation of all our fisheries and marks the line between failure and success, and unless we look to it carefully one of the most important food supplies will continue to be a waning industry.

In the bays, lakes and the rivers the steady decline of the fisheries must be apparent to every careful observer. The theory that they can be maintained by artificial propagation against the wholesale destruction of both the young and old fish is wrong, for there will come a time (and in some instances it has already come) when the supply of mature fish, upon which we must depend for eggs, must fail.

The Legislature cannot err in passing stringent laws for the protection of the young fish.

It is not and should not be the policy of the State to go to the expense of raising trout to the length of four or five inches and plant them in brooks, only, perchance, to be caught out the next day by improvident fishermen.

The Commissioners have constructed works at Sutton and are increasing the breeding trout as fast as possible, and will, in a short time, be able to deliver from that place several hundred thousand fry annually. Let the people demand proper protection for them, for in no other way is success certain.

Fish culture has passed from theory into thoroughly practical work. Certain things are well known and understood by those who have given it attention. There can be no objection to experiments being tried by any one having time and means at his disposal. But we object to conclusions based upon theories, unsupported by facts.

It rests upon those who advocate the theory of stocking with yearlings, to show by a series of carefully conducted experiments the advantage that is claimed for it, and in so doing the cost of fry and yearlings must be taken into ac-

count, for 25,000 fry could be purchased for the price charged for 1,000 yearlings.

INTEREST IN FISH-CULTURE.

At no time since the advent of fish-culture, has there been so much interest felt in the work. The marvellous exhibit at the World's Fair, which was constantly crowded from the opening to the close, has made the public more or less familiar with what is being done in this direction.

Frequent applications are made for instruction in breeding fish, and also for persons who are competent to take charge of breeding ponds and hatcheries. There are no colleges or institutions where such information is taught, and oral instruction, without manual training, is of little use. Object lessons and a participation in the work is necessary to enable one to become proficient in fish culture.

To meet this want in a small way, and in the hope that it may induce the Agricultural College to establish a course of instruction in this department for the training of young men, a few students will be accepted at the State hatchery at Sutton, where a course of lectures will be given on all subjects connected with the breeding and rearing of fish. No charge will be made for tuition, but the students will be expected to devote a part of their time, as at the Agricultural College, to manual training in every department necessary to a practical understanding of the work. No student will be accepted for less than one year, and when properly qualified will receive a certificate of fitness to take charge of such work.

To farmers owning trout brooks we commend the following extract from the address of the Governor of New York at the Washington (N. Y.) County Fair:—"I doubt if many of you know what an important work is being done for the public interests of the State in the matter of fish propagation. This is a comparatively new feature of State effort, but is beginning to assume considerable proportions. Our State Fish Commission was established somewhat more than ten years ago and its chief work is to encourage the propagation of food fish in all available streams and waters, so that all the people of the State may be direct participants in the benefits to be gained. We have been so accustomed

to regard land as the source of food that we have ignored the enormous possibilities of water as a food supplier; but we are now beginning to see that the 1,500 square miles of water area in this State may be turned into profitable and abundant food supply." He urged the farmers to set their boys to work raising fish in the brooks and ponds, instead of sending them to the cities as clerks; that many of the clear, cold brooks, used only for watering stock, could be turned into trout streams; that he had seen many a spring brook running through a farm, comparatively valueless, which, devoted to trout culture, might be worth hundreds of dollars a year to the owner, and the profit of such little streams might be greater than twenty or thirty acres of land. "You will find fish culture more profitable than growing wheat at seventy-five cents a bushel."

Fish culture has, in many cases, proved a failure from a lack of knowledge in constructing and managing the plant. It is not alone in the sale of trout in the market that the farmer could look for his profit. There are many anglers who would be glad to pay a good price per pound for the privilege of fishing in a well-stocked brook.

In this way the size and number of fish caught could be controlled, and a small hatching house and one or two ponds at the head of the brook would keep up the supply.

Where there are several streams within a few miles of each other, the owners could unite, and one hatchery would supply all of them.

The work in a hatching house is mostly done in winter, when work is slack on the farm.

LAKE OR SALMON TROUT.

About forty thousand of these eggs were hatched last spring, and planted in two ponds on Cape Cod. Application has been made to United States Commissioner McDonald and accepted for one hundred thousand eggs to be hatched next spring and planted in suitable ponds.

WHITE PERCH.

There have been several applications for this excellent fish, and it was intended to obtain a supply for distribution this fall, but the retaining pond for them could not be completed

in time. We now expect they will be ready in the spring, and all applications will be filled as fast as possible.

There are many ponds in the Commonwealth suitable for these fish, and they should be stocked with them.

CARP.

Only five applications were made for carp last year. Fifty fine, healthy young fish, one year old, were given to each.

Carp are so easily and inexpensively raised that it seems strange that so little attention is paid to them in this State. There are many farms containing streams or ponds unsuitable for trout where carp could be successfully grown. They flourish best in warm shallow water where weeds are abundant, and if taken out a few days before they are wanted for the table, and put into cold spring water, the flesh becomes hard and they lose the muddy flavor. Their growth where there is plenty of vegetable food is phenomenal. Six years ago, a few of them were planted in the Abijona river (headwaters of the Mystic) and last May and June they were found spawning, some of them weighing from ten to fifteen pounds each. A few carp have found their way to the Boston market, where they sold at sixteen and seventeen cents a pound.

By the following extract from "The American Fish Culture," some idea of their abundance and market value elsewhere is shown : —

Lake Erie Carp, Their Price, the Demand for Them.

By the overflow and breaking away of ponds and the stocking of streams by fish commissioners with the surplus from the hatcheries, the carp have worked their way into Lake Erie, and have multiplied and thriven until, during the fishing season just closed, quantities of them were taken in the pounds as well as in the gill nets of the numerous individuals and companies who make a business of fishing in this great lake, which, by the way, is the great fishing ground in the chain of lakes, and is peculiarly the white-fish lake.

What do these fishermen do with the carp when they have caught them? This is a pertinent question and its answer is of great interest to all those persons who have been raising carp. All fish taken are assorted, and each kind, when there are enough of

them, are put into boxes which hold two hundred pounds, and these boxes are then taken to the fish warehouses of merchants, who make a specialty of shipping them to retailers, etc. The carp are assorted in this same way and sent to these same merchants, who are not only glad to get them, but cannot get enough of them, and they very gladly pay the same price for them as they pay for the famous whitefish, which has always been considered the best fish in the lake. For instance, when the warehouse-man paid six cents a pound by the box for whitefish, he paid six cents a pound by the box for carp. In this connection I wish to say that many of the finest restaurants and hotels in this State today have German carp on their bills of fare as often as they can get the bill of fare to warrant it.

I want to take an exception to their calling them German carp; they are no more German carp than a child born of German parents in this country is a German. They are American carp. Among the many restaurants in Ohio that have carp regularly on their bill of fare is the Strannahan restaurant, in the Arcade building in Cleveland. This is one of the best conducted and successful eating houses in that great city. Every day they feed thousands of people, including many of the epicures of the city, who take their midday lunch there, and every other day carp is the fish on their bill of fare. Facts like these knock over the silly twaddle of writers who are seeking a cheap notoriety in condemning not only the carp, but the commissioners for bringing them to this country, and who know nothing of the merits of the fish, and have not attempted to learn. A few years more, when the carp can be supplied regularly and in sufficient quantities to hotels and restaurants to answer their purpose it will become one of the staple fish of this country, and the enterprise that furnishes them alive to the market will be well rewarded.

LOBSTERS.

It will be seen by the returns that while there has been an increase in the number of traps, there has not been a corresponding increase in the number of lobsters taken. The season opened very favorably, with an unusual catch of large lobsters, but it fell off during the summer and fall.

The constant patrolling of the coast by the steamer, the capture * of short and egg-bearing lobsters secreted in crates sunk in out of the way places, and the frequent conviction

* Number of short and egg-bearing lobsters seized and planted in depleted places, 6,411. Estimated number of eggs, 4,720,000.

in the courts of violators of the law, has had a salutary influence upon those who have heretofore disregarded regulations for the protection of these fish.

No persons outside of the State have set traps in Massachusetts waters this year, and the several smacks plying between this and other States, inducing the fishermen to violate the law, have been driven out, and the captain of one was brought before the court and fined.

The protection which this steamer has given to the law-abiding fishermen, has satisfied them that the State is energetically protecting this important industry.

It is too soon to realize any practical result from the protection of egg-bearing lobsters, for it is generally admitted that it takes from five to seven years for the newly hatched lobsters to reach a marketable size. There can be no question as to the benefit to be derived from the ten and one-half inch law, but unfortunately, a large majority of the female lobsters do not spawn until they reach from eleven to eleven and one-half inches in length, and in consequence there is an alarming decrease in egg-bearing lobsters.

The catch of egg-bearing lobsters, as reported by the fishermen, for the last four years, is as follows : — 1890, 70,909 ; 1891, 49,973 ; 1892, 37,230 ; 1893, 32,741. The returns from the Wood's Holl Station give an average of over 14,000 eggs per lobster. At that ratio, the returns for 1890 should give 992,726,000, and the decrease since 1890 would be 534,352,000, a loss of over 50 per cent.

The lobster does not belong to the great ocean fisheries ; he is a bay or estuary fish, and can be and has been on some parts of the Atlantic coast almost entirely destroyed. On all parts of this coast the supply may be said to be greatly reduced in numbers by indiscriminate and excessive fishing.

To change the law to eleven and one-half inches, so as to allow the female to have at least one year's spawning, might, for one or two years, interfere with the income of the fishermen, but they would be more than compensated in a few seasons by the increase in number and weight of their catch.

Should this decrease of the egg-bearing lobsters continue it may become necessary to recommend a change. At

present, this State has the best law for the protection of these fish of any State in the Union. Let the fishermen see to it that it is faithfully kept, and when the full results are known a change may not be required. Neither they nor the State can afford to lose this important industry.

At the request of U. S. Commissioner Marshall M'Donald a permit was granted to take lobsters in Massachusetts waters for propagation and scientific observation, and Mr. John Maxwell of Wood's Holl was appointed deputy commissioner with authority to take or cause to be taken such lobsters as might be required. The following is his statement of the work :

U. S. COMMISSION OF FISH AND FISHERIES,

WOOD'S HOLL, MASS., Aug. 25, 1893.

E. A. BRACKETT, *Chairman Board of Fish and Game, Winchester, Mass.*

DEAR SIR:—Under date of May 15, 1893, I received an appointment as Deputy from your Honorable Board of Commissioners, "to hold good until Jan. 15, 1894, unless sooner revoked." This appointment carried with it the right to purchase egg-bearing lobsters for use at the U. S. Commission Station at Wood's Holl, Mass., with the understanding "that said lobsters, after being deprived of their eggs, shall be returned to the water alive."

In obedience to the instructions contained in your letter of the same date, in reference to the number of lobsters purchased, I beg leave to make the following report:—

Between May 19 and June 29, —

| | | |
|------------------------------------|---------------------------------|-----------------|
| Purchased | 619 egg lobsters, which yielded | 9,142,090 eggs. |
| Collected by employees at Station, | 85 egg lobsters, which yielded | 895,210 " |
| Total | 702 | 10,037,300 |

Fry produced and liberated, 8,818,000; 87.5 per cent. was hatched and liberated, principally in Vineyard Sound, from twenty-four to forty-eight hours after hatching.

All the brood lobsters, after being deprived of their eggs (except a few that were shipped to the World's Fair), were placed in the deep waters of Vineyard Sound, care being taken to place them at points where lobster pots are not usually set. Our steam launch was used for this duty.

Very respectfully,

JOHN MAXWELL, *Superintendent.*

In 1889 the Massachusetts Commission conducted a series of careful experiments in artificially hatching lobsters, and the following statement was made in their report of 1891. Many of the facts then demonstrated were new, and we are not aware that any of them have been called in question.

At a hearing before a legislative committee on fish and game, for the purpose of discussing the question of a close season on lobsters, the fishermen claimed that they spawned every month in the year. Our investigations have shown this to be correct, but not in the sense which the fishermen claimed for it. Such spawning is an exception to the general rule, for the bulk of the spawn is deposited in June, July and August. While engaged in hatching lobsters in April, 1889, some facts were discovered leading to the conclusion that lobster eggs did not hatch in the winter time. To verify this, egg-bearing lobsters were secured in the fall, and kept in cars until spring. The temperature of the water was taken every day, and a few eggs were sent to Professor Garman, at Cambridge, every two weeks, for microscopic examination. It was found that little or no progress was made in the development of the embryo, until the water reached a temperature of 50° F., and no eggs were hatched until the water rose to 55°. These experiments have demonstrated the fact that, no matter what time the eggs are deposited on the swimmerets, they require a certain degree of warmth to mature them. It is doubtful whether, if hatched below this temperature, they would find the animalculæ necessary for their food.

Our experiments in hatching lobsters showed that, with proper arrangements, it was easy to hatch them by millions, but such an arrangement would require a hatching house, with machinery for lifting the water so that there would be a constant flow over the eggs; and that they could be kept in confinement, from four to eight days, according to the temperature of the water, after which they either destroyed each other or died of starvation. No efforts yet made to feed them have succeeded; and, however successful one may be in hatching them, they should be let loose, at once, to take their chances in the open sea.

Egg-bearing lobsters, put in boxes properly prepared and

floated in sheltered places, demonstrated the fact that there were no unimpregnated eggs. All hatched at about the same time. Whether they are impregnated before or after the eggs are laid has not yet been positively determined.

In our experiments we repeatedly removed the eggs from the swimmerets, and hatched them in boxes on wire screens. We found that by the most careful handling, this could be done with a loss of from ten to twenty per cent. This is verified by the experiments at Wood's Holl, where from 10,037,300 eggs, 8,818,000 were hatched, showing a loss of 1,219,300.

We recommend an appropriation for the erection and maintenance of an establishment for the hatching and distribution of young lobsters, and believe that it can be made the agency and instrument of increase of these desirable shell fish and a matter of largely increasing importance to our people.

STEAMER "OCEAN GEM."

Repairs were commenced on the steamer, for the season of 1893, the 13th of April, and she sailed for the fishing grounds May 13, under command of Captain Proctor of Swampscott, for the suppression of illegal fishing along the coast from New Hampshire to the Rhode Island line.

The illegal taking and marketing of short and egg-bearing lobsters by parties outside of the State has been practically stopped, and the fishermen engaged in evading the laws have turned their attention to other modes of fishing. The fishermen of our own State appear to be well satisfied with the present laws.

From the middle of August to October 10, the steamer was, most of the time, on duty in and about Buzzard's Bay, in order to prevent seining by the menhaden steamers which were about there from September 10 to October 5, necessitating her presence on the grounds at all times, day and night.

It has been an exceedingly rough season, and the boat, having to be out in all kinds of weather, has had several narrow escapes. During the hurricane, August 19, she came near foundering, as she was caught in the lower bay

and had the full force of the gale to contend with. Also during the severe weather of the fall, while guarding the lower part of the bay, which the enforcing of the laws demanded, she was kept in rough water most of the time.

The Commissioners' instructions to the captain are to keep in the lower bay, when the menhaden steamers are about, and much of the time it keeps a boat like this with her decks flooded with water, and everything must be in first-class condition to stand the work she is called upon to perform.

After her rough experiences of last season we deem advisable, and her condition demands, a thorough overhauling, to put her in good seaworthy condition to do the work safely and satisfactorily. For without a suitable boat the shores would be left unprotected, and the good work which has been accomplished during the last four years by the enforcement of the laws, would be undone, and the propagation of lobsters would lapse into the same condition as before; which means a further diminution of food fish. On these grounds we think it wise for the Commonwealth to be in a position to protect its fisheries at all times.

Captain Proctor has run the boat this season without accident and has still further demonstrated his ability to fulfil the requirements of the Commission. His report will be found in the Appendix.

Ground game has been fairly plentiful this year.

It is scourged and decimated by increased vermin.

The low price of peltries decreases the number of persons who trap for predatory animals, hence the increase of creatures that are destructive, both of the game and the feathered product of the farms. For several years we have with emphasis recommended the payment of bounties for the destruction of these animals, and yearly the measures fail, as we believe, through lack of appreciation both of the fact of the existence of these animals in large numbers, and the damage and mischief done by them.

In the agricultural places of the State, and even in proximity to our middle and western cities and large towns and the towns and villages of the Cape, these nocturnal maraud-

ers pursue their work and increase their numbers with little disturbance or fear.

Foxes, wild-cats, skunks, weasels and other like vermin are more plentiful than they were twenty years ago, notwithstanding the increase of the population.

Measures for the abatement of these pests are necessary, and we renew again, earnestly, our recommendation of several preceding years that a law providing bounties be passed. Such laws for the killing of destructive seals have been in successful operation for several years in one or more of the counties of the Commonwealth.

The importation and successful acclimatization in other States of several varieties of European grouse and pheasants demonstrate the entire feasibility of stocking nearly, if not all, New England with one or more varieties of these birds.

Private endeavor and enterprise in our own State by public-spirited and interested citizens have done much toward replenishing our depleted covers with native and foreign birds.

The authorized expenditure by the Commission of a small sum each year, especially in co-operation with private effort, would be justified and is advisable.

WEIRS.

While the catch of mackerel has been less than last year, the sea-herring have been caught in large quantities and have furnished a supply of bait to the deep-sea fishermen through the season at reasonable prices, enabling them to prosecute their business without being obliged to go to foreign waters, which is very expensive, and much valuable time lost in pursuit of bait. This is a very important matter to our fishermen, and as usual has furnished employment to a large number of worthy citizens.

This season, cold storage plants have been erected at Provincetown and Truro by private enterprise, for the purpose of taking care of the surplus herring and other fish, so that from the time that the fish leave our shores until the arrival of winter herring from Newfoundland, a supply can be obtained. Without a liberal supply of bait the great fisheries cannot be successfully carried out, and whatever

tends to facilitate the labor of the hardy fishermen, should be freely granted by the State.

In the Appendix will be found the tabulated returns of the catch of fish. It will be seen that in the lobster fisheries there has been an increase over 1892 of 59 persons engaged in fishing, 2,948 traps and 41,968 marketable lobsters, and a decrease of 4,489 egg-bearing lobsters.

Weirs and Pounds.

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|---|-----------|
| Increase in number over 1892, | 42 |
| in alewives, | 975,653 |
| in sea-herring, | 2,519,220 |
| in menhaden, | 4,150,776 |
| in squeateague, | 235,943 |
| in Spanish mackerel, | 2,034 |
| in blue-fish, | 7,827 |
| in squid, | 297,805 |

A slight increase in shad, the total catch of which, in both salt and fresh water, amounts to only 18,474.

Decrease below 1892 —

| | |
|---------------------------------------|-----------|
| Striped bass, | 1,711 |
| Scup, | 207,376 |
| Mackerel, | 2,809,266 |
| Tautog, | 10,972 |
| Flounder and flatfish, | 72,792 |
| Other edible fish and bait, | 22,426 |

Correct returns of the annual catch of fish are important to the fishermen as well as to the State, and in order to facilitate the work some slight changes are desirable in the laws regulating the returns.

We feel confident that at no time have the laws been so thoroughly enforced as during the past year, or the work of the Commission more efficiently or economically carried on.

EDWARD A. BRACKETT.

EDWARD H. LATHROP.

ISAIAH C. YOUNG.

APPENDIX.

[A.]

LIST OF FISH COMMISSIONERS.

THE UNITED STATES.

Col. Marshall McDonald, Commissioner, Washington, D. C.
 Capt J. W. Collins, Assistant in Charge of Fisheries Division.
 Richard Rathbun, Assistant in Charge of Scientific Inquiry.

ALABAMA.

Col D. R. Hundley, Madison.
 Hon. Chas. S. G. Doster, Prattville.

ARIZONA.

T. W. Otis, Prescott.
 John Howard, Prescott.
 C. W. Stearns, Phenix.

ARKANSAS.

H. H. Rottaken, President, Little Rock.
 W. B. Worthen, Secretary, Little Rock.
 J. W. Callaway, Little Rock.

This State has never made an appropriation for fish culture.

DOMINION OF CANADA.

Hon. C. H. Tupper, Minister of Marine and Fisheries, Ottawa.
 Hon. John Tilton, Deputy Minister, Ottawa.
 S. P. Bauset, Chief Clerk, Ottawa.

Samuel Wilmot, Superintendent of Fish Culture, Ottawa.

Inspectors of Fisheries: J. R. Kinney, Yarmouth, N. S.; R. C. Hockin, Pictou, N. S.; A. C. Bertram, North Sydney, N. S.; J. H. Pratt, St. Andrews, N. B.; R. A. Chapman, Moncton, N. B.; D. Morrow, Oromocto, N. B.; E. Hackett, Tignish, P. E. I.; W. Wakeman, Gaspé Basin, P. Q.; Thos. Mowat, New Westminster, B. C.; Alex McQueen, Winnipeg, Manitoba; F. C. Gilchrist, Fort Qu'Appelle, N. W. T.

Officers in Charge of Fish-breeding Establishments: S. Wilmot, Superintendent of Fish Culture, Newcastle, Ont.; Chas. Wilmot, Officer in Charge, Newcastle hatchery, Ont.; Wm. Parker, Sandwich, Ont.; L. N. Cattelier, Tadoussac, Q.; H. Davis, Gaspé, Q.; A. H. Moore, Magog, Q.; Alex. Mowat, Restigouche, Matapédia, P. Q.; A. B. Wilmot, Bedford, N. S.; C. A. Farquharson, Sydney, N. S.; Isaac Sheasgreen, Miramichi, N. B.; Charles McCluskey, St. John River, Grand Falls, N. B.; Henry Clark, Dunk River, P. E. I.; Thomas Mowat, B. C. hatchery, New Westminster, B. C.

NEWFOUNDLAND.

Hon. A. W. Harvey, Chairman, St. Johns; M. Harvey, Secretary, St. Johns; Adolph Neilson, Superintendent of Fisheries, St. Johns.

CALIFORNIA.

Joseph D. Redding, President, San Francisco.
 H. L. M'Neil, Los Angeles.
 Wm. C. Murdoch, Secretary, San Francisco.
 F. P. Deering, Attorney, San Francisco.

COLORADO.

Gordon Land, Denver.

CONNECTICUT.

James A. Bill, Lyme.
 Samuel M. Bronson, Hartford.
 Richard E. Follett, Lime Rock.

The Shellfish Commissioners are: Dr. Wm. H. Hudson, Chairman, Hartford; George C. Waldo, Bridgeport; Bryant A. Treat, Wallingford.

DELAWARE.

Charles H. Shubert, Odessa.
 Dr. E. G. Shortlidge (Supt. of Hatcheries), Wilmington.

GEORGIA.

R. T. Nesbitt, Atlanta.
 Dr. H. H. Cary, Superintendent, La Grange.

ILLINOIS.

N. K. Fairbank, President, Chicago.
 S. P. Bartlett, Quincy.
 Geo. Breuning, Centralia.

INDIANA.

Col. W. T. Dennis, Richmond.

IOWA.

E. D. Carlton, Spirit Lake.
 Ole Bjorensen, Superintendent.

KANSAS.

John M. Brumbaugh, Concordia.

MAINE.

Thos. H. Wentworth, Bangor.
 Henry O. Stanley, Dixfield.
 E. W. Gould, Sea and Shore Fisheries, Searsport.

MARYLAND.

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|---------------------------|------------|
| G. W. Delawder, | Oakland. |
| G. R. Rider, | Salisbury. |

MASSACHUSETTS.

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| E. A. Brackett, | Winchester. |
| I. C. Young, | Wellfleet. |
| E. H. Lathrop, | Springfield. |

MICHIGAN.

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| Hoyt Post, | Detroit. |
| Herschell Whitaker, | Detroit. |
| H. W. Davis, | Grand Rapids. |
| Seymour Bower, Superintendent, | Detroit. |
| Wm. A. Butler, Treasurer, | Detroit. |
| Geo. D. Mussey, Secretary, | Detroit. |

MINNESOTA.

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| W. S. Timberlake, | St. Paul. |
| Wm. Bird, | Fairmont. |
| W. P. Andrus, | Minneapolis. |
| A. F. Ferris, Secretary, | Brainerd. |
| F. von Baumbach, | Alexandria. |
| S. S. Watkins, Superintendent, | St. Paul. |

MISSOURI.

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| H. M. Garlichs, Chairman, | St. Joseph. |
| J. L. Smith, | Jefferson. |
| Edw. Cunningham, | St. Louis. |
| A. C. Garlichs, Secretary, | St. Joseph. |
| Philip Kopplin, Jr., Superintendent, | St. Louis. |
| James W. Day, Superintendent, | St. Joseph. |

NEBRASKA.

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| William L. May, | Omaha. |
| S. C. Burlingim, | Seward. |

NEVADA.

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| Geo. T. Mills, | Carson City. |
| Ernest Harris, Deputy, | Carson City. |

NEW HAMPSHIRE.

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| W. T. Shurtleff, | Lancaster. |
| W. H. Griffin, | Manchester. |
| Nathaniel Wentworth, | Hudson. |

NEW JERSEY.

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| George Pfeiffer, Jr., | Camden. |
| Robert D. Foote, | Morristown. |
| Parker W. Page, | Summit. |

NEW YORK.

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| L. D. Huntington, President, | . | . | . | . | . | New Rochelle. |
| W. H. Bowman, | . | . | . | . | . | Rochester. |
| A. S. Joline, | . | . | . | . | . | Tottenville. |
| D. G. Hackney, | . | . | . | . | . | Fort Plain. |
| Rob't Hamilton, | . | . | . | . | . | Greenwich. |
| E. P. Doyle, Secretary and Engineer, | Office 81 Fulton Street, New York. | | | | | |

OHIO.

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| B. F. Seitner, Secretary, | . | . | . | . | . | Dayton. |
| J. H. Newton, | . | . | . | . | . | Newark. |
| John H. Law, | . | . | . | . | . | Cincinnati. |
| H. B. Vincent, | . | . | . | . | . | M'Connellsville. |

OREGON.

H. D. M'Guire, Fish and Game Warden.

PENNSYLVANIA.

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| Henry C. Ford, 1823 Vine Street, | . | . | . | . | . | Philadelphia. |
| G. H. Welshous, | . | . | . | . | . | Pittsburg. |
| H. C. Demuth, | . | . | . | . | . | Lancaster. |
| L. B. Stillwell, | . | . | . | . | . | Scranton. |
| Louis Streuber, | . | . | . | . | . | Erie. |
| W. L. Powell, | . | . | . | . | . | Harrisburg. |

RHODE ISLAND.

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| Henry T. Root, Treasurer, | . | . | . | . | . | Providence. |
| William P. Morton, Secretary, | . | . | . | . | . | Johnston. |
| J. M. K. Southwick, | . | . | . | . | . | Newport. |

SOUTH CAROLINA.

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| Hon. A. P. Butler, | . | . | . | . | . | Columbia. |
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TENNESSEE.

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| W. W. McDowell, | . | . | . | . | . | Memphis. |
| H. H. Sneed, | . | . | . | . | . | Chattanooga. |
| Edward D. Hicks, | . | . | . | . | . | Nashville. |

UTAH.

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| A. Milton Musser, | . | . | . | . | . | Salt Lake City. |
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VERMONT.

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| John W. Titcomb, | . | . | . | . | . | Rutland. |
| Charles C. Warren, | . | . | . | . | . | Waterbury. |

VIRGINIA.

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| Dr. J. T. Wilkins, | . | . | . | . | . | Bridgetown. |
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WEST VIRGINIA.

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| C. S. White, President, | . | . | . | . | . | Romney. |
| F. J. Baxter, Treasurer, | . | . | . | . | . | Sutton. |
| N. C. Prickett, Secretary, | . | . | . | . | . | Ravenswood. |

WASHINGTON.

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| James Crawford, | . | . | . | . | . | Vancouver. |
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WISCONSIN.

The Governor, *ex officio*.

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| Philo Dunning, President, | . | . | . | . | . | Madison. |
| C. L. Valentine, Secretary and Treasurer, | . | . | . | . | . | Jamesville. |
| Mark Douglass, | . | . | . | . | . | Melrose. |
| A. V. H. Carpenter, | . | . | . | . | . | Milwaukee. |
| Calvert Spensley, | . | . | . | . | . | Mineral Point. |
| E. S. Miner, | . | . | . | . | . | Sturgeon Bay. |
| James Nevins, Superintendent, | . | . | . | . | . | Madison. |

WYOMING TERRITORY.

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| Louis Miller, | . | . | . | . | . | Laramie. |
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[B.]

Commissioners on Inland Fisheries and Game.

GENTLEMEN:—As a Deputy Fish and Game Commissioner, I respectfully submit the following report for the year 1893. I have made but seven prosecutions during the year, five for violations of the laws in relation to lobsters, and two for offering game for sale in the close season. The number of complaints sent me of instances where the laws were being violated have not exceeded fifty per cent. of the number sent me in previous seasons. The number of undersized lobsters taken for the purpose of selling has not been near as large as in any season during my experience as a Deputy. I have frequently examined ten barrels at a time, without so much as finding even one. The lobsters offered in our markets have been of good size and quality. Very few soft shelled culls have been sold by street peddlers, as compared with former seasons. From observation and experience, I feel justified in saying that the execution of the fish and game laws will compare favorably with the execution of the laws in relation to criminal offences in other Departments. Several complaints have been sent me of parties taking partridges by means of snares; birds are frequently seen in the markets that have been thus taken. I see no direct remedy for this evil while the statute allows a person to snare game birds and animals on his own premises. This season, in August, we found a person in the woods with gun and dog, who claimed he was not hunting, but training his dog to point game. If a hunter fails to shoot when the dog points the game, his education in the line of pointing will be slow, and a sensible dog soon becomes disgusted with the work of his master. If the hunter does not intend to shoot, why does he carry his gun loaded when training his dog? If the statute provided for the seizing and confiscating of both gun and dog from persons found shooting in the woods in close time, the illegal killing of game birds and animals would soon cease. Amount of fines imposed, \$50.

Respectfully yours,

B. P. CHADWICK,

Deputy Commissioner.

BRADFORD, Dec. 5, 1893.

Nov. 15, 1893.

GENTLEMEN :—I have the honor to submit the following report: I have inspected the Massachusetts coast in a steamer, and find that the fishermen of this State are complying with the law better than in former years. The owners of menhaden steamers from other States still disregard our laws and steal in and attempt to catch fish whenever an opportunity is offered.

It has taken all my time during the latter part of the summer to protect our waters from the raids of said steamers.

The destruction of young lobsters has not been as great, owing in part to an excellent law that was passed by the last Legislature, prohibiting lobster fishing by non-residents.

Smacks from other States came into our waters near the State line and carried away small and egg-bearing lobsters without any regard for our laws.

The strict enforcement of chapter 183, Acts of 1893, has caused these poachers to abandon our waters entirely.

The requirements of chapter 28, Acts of 1881, are being very well complied with.

I have not had any complaint of violation of the game laws and there has not been any to my knowledge.

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| Number of cases investigated, | 30 |
| Number of arrests, | 21 |
| Convicted and fined, | 18 |
| Sentenced to House of Correction (two years), | 1 |
| Discharged by court, | 2 |
| Violation of lobster law, | 16 |
| Violation of fish law, | 2 |
| Violation of liquor law, | 1 |
| Breaking and entering, | 1 |
| Attempt to rape, | 1 |
| No. lobsters seized and planted in depleted places, | 6,411 |
| No. eggs planted, | 4,720,000 |
| Stolen property recovered, | \$10.00 |
| Amount of fines imposed, | \$1,665.00 |

Respectfully submitted,

W. H. PROCTOR,

District Police Officer.

MARION, Dec. 1, 1893.

To the Commissioners on Inland Fisheries and Game.

GENTLEMEN :—In submitting my report I am pleased to say, that in the district assigned to me, the laws for the protection of fish and game have been better respected this year than for a long time. Owing to the fact of business being very poor at all the

summer resorts, the fishermen have been able to easily supply the demand for lobsters, and in consequence very few short lobsters have been used during the season, compared to former years. The fishermen in the vicinity of Plymouth report the spring catch of lobsters larger and more plenty than for many years, with a slight falling off in the later months. They firmly believe that the Act of 1889, protecting the female egg-bearing lobster, is beginning to be felt, and I am glad to note that a large majority of them, whenever they take an egg-bearing lobster, disjoint the claw before returning it to the water, thereby not only preserving it for a breeder, but at the same time making it unmarketable, in case some less honest fisherman should again catch it. There have been no complaints, neither have I been able to learn of any violations of the game laws.

A few complaints have been received for violations of the smelt laws, and while considerable time, both night and day, has been spent to thoroughly investigate such complaints, I have failed to find any evidence against the parties complained of. You will notice the returns sent in by the lobster fishermen show a large increase in the number of pots set during the year, and while they show an increase in the total catch of large lobsters over last year, they also show a decrease in the catch per pot of last year, the average catch per pot last year being a fraction over 78, while the average of this year's catch is less than 70. The returns from the pound and net fishermen, while showing an increase in some kinds of fish, also show a decrease in other kinds, but taken as a whole compare favorably with last year's catch. The fact of a person operating one, two or more pounds, and making his returns without specifying the number operated, makes it impossible to make an average of the catch per pound, and if the law could be amended requiring every person in making his return to specify the number set or operated, it would then be possible to determine whether the fisheries were on the increase or decrease.

Respectfully,

JOHN W. DELANO,
Deputy Commissioner.

FISH SEEN IN THE LAWRENCE FISHWAY IN THE SEASON OF 1893.

The spring was cold and wet; the lower end of the fishway was submerged nearly all the time. Had very high water the first week in May, highest in that month for a number of years. Saw fish (suckers) under the falls bridge two weeks before I saw them in the fishway.

- May 23. Lampreys and suckers, run small.
24. Lampreys, run moderate; suckers and alewives, run small.
25. Lampreys, run moderate; suckers and alewives, run small.
26. Lampreys and alewives, run moderate; suckers, run small.

- May 27. Lampreys, run large; alewives and suckers, run small.
28. One salmon, 12 pounds; lampreys, run moderate; suckers and alewives, run small.
29 to June 2. Lampreys, run moderate; suckers, run small.
- June 3. Lampreys, run moderate; suckers, run small; a few alewives.
4 to 6. Lampreys, run moderate; suckers, run small.
7. Four salmon, 10 to 12 pounds; lampreys, run moderate; suckers, run small.
8. Lampreys, run moderate; suckers, run small.
9. One salmon, 10 pounds; lampreys, run moderate; a few suckers.
10. One salmon, 12 pounds; lampreys, run moderate; a few suckers.
11. Lampreys, run moderate; a few suckers and silver eels.
12. One salmon, 10 pounds; lampreys, run moderate; a few suckers.
13. Four salmon, 10 to 12 pounds, in A.M. The water was low in the river this forenoon; men were at work closing the gap left on south end of dam without flashboards; saw the dorsal fin of a large salmon show above the water in the pool at the foot of the fishway at this time. In the afternoon there was no water running over the dam (flashboards all on); this caused quite a little fall from the end of the fishway to the pool below, and this pool at the end of the fishway was crowded full of lampreys, thousands of them.
14. Two salmon, 12 pounds; lampreys, run very large.
15. Lampreys, run very large; a few silver eels.
16. One salmon, 14 pounds; lampreys, run very large.
17. One salmon, 12 pounds; lampreys, run very large.
18. Lampreys, run very large.
19 to 21. Lampreys, run large.
22. Lampreys, run moderate; small silver eels, run small.
23. One salmon, 12 pounds; lampreys, run small; river rising to-day, a little turbid.
24. Two salmon, 10 to 14 pounds; lampreys, run small; two black bass.
25. One black bass; lampreys and suckers, run small.
26. Four salmon, 10 to 14 pounds; lampreys, run small.
27. One salmon, 12 pounds; lampreys, run small.
28. One salmon, 12 pounds; lampreys, run small.
29. Three salmon, 12 to 18 pounds; lampreys, run small.
30. One salmon, 14 pounds; one black bass; lampreys, run small.
- July 1. Lampreys and small silver eels, run small.
2. Thirteen salmon, 8 to 20 pounds; one black bass.
3. Three salmon, 10 to 16 pounds; a few lampreys; small silver eels and suckers.
4. Two salmon, 6 to 10 pounds; a few lampreys; small silver eels and suckers.
5 to 9. Silver eels, run small; a few suckers and lampreys.
10. Three salmon, 10 to 14 pounds.
11 to 13. Silver eels, run small; a few suckers.

- July 14 to 16, 3 30 P.M., water shut out of fishway ; river low.
- July 16 to 19. Silver eels, run small ; a few suckers.
 20 to 24, 1.30 P.M., water shut out of fishway.
 24 to 27. Silver eels, run small ; a few suckers.
 28 and 29, 1.30 P.M., water shut out of fishway.
 29 to Aug. 19. Silver eels, run small ; a few suckers.
- Aug 20. One black bass ; a few silver eels and suckers.
 21. Two black bass ; a few silver eels and suckers.
 22. A few silver eels.
 23. Four black bass ; a few silver eels.
 24. One salmon, 10 pounds ; a few silver eels.
 25. One salmon, 8 pounds ; one black bass ; a few silver eels.
 26. Two salmon, 8 to 12 pounds ; a few silver eels and suckers.
 27. One salmon, 10 pounds ; a few silver eels and suckers.
 28. Two black bass ; a few silver eels and suckers.
 29. A few silver eels and suckers.
 30. One salmon, 12 pounds ; one black bass ; a few suckers and silver eels.
31. Three salmon, 8 to 14 pounds ; a few suckers and silver eels.
- Sept. 1. Two salmon ; four black bass ; a few suckers and silver eels.
 2. Three salmon ; one black bass ; a few suckers and eels.
 3. Three black bass ; a few suckers and silver eels.
 4. One black bass ; a few suckers and silver eels.
 5. A few suckers and silver eels.
 6. Two black bass ; a few suckers and silver eels.
 7. A few suckers and silver eels.
 8. Three black bass ; a few suckers and silver eels.
 9. One black bass ; a few suckers and silver eels.
 10. Four black bass ; a few suckers and silver eels.
 11. One black bass ; a few suckers and silver eels.
 12. A few suckers and silver eels.
 13. Two salmon, 10 to 14 pounds ; a few suckers and silver eels.
 14. A few suckers and silver eels.
 15. Two salmon, 8 to 12 pounds ; a few suckers and silver eels.
 16 to 19. A few suckers and silver eels.
 20. One salmon, 10 pounds ; a few suckers and silver eels.
 21 to Oct. 15. A few suckers in the fishway.
- Oct. 16. Eight salmon, 6 to 14 pounds ; suckers, run moderate.
 17. Three salmon, 6 to 12 pounds ; suckers, run larger.
- Oct. 18. One salmon, 8 pounds ; suckers, run moderate.
 19. One salmon, 10 pounds ; suckers, run moderate.
 20. One salmon, 6 pounds ; suckers, run moderate.
 21 to 24. Suckers, run moderate.
 25. Two salmon, 10 to 12 pounds ; suckers, run moderate.
 26. Four salmon, 6 to 14 pounds ; suckers, run moderate.
 27. Four salmon, 10 to 12 pounds ; suckers, run small.
 28 to 29. A few suckers.
 30. Four salmon, 10 to 12 pounds ; a few suckers.
 31 to Nov 8. A few suckers ; the number growing less and less every day.

[C.]

DISTRIBUTION OF TROUT FRY.

The trout fry hatched from the eggs received from Plymouth, N. H., were distributed and planted as follows, giving to each applicant about 3,500 fish : —

Barnstable County.

W. F. Robinson, Hatchville.
J. S. Nicholson, Hyannis.
J. H. Frost, Barnstable.
A. S. Backus, Marston's Mills.
Howard Swift, East Falmouth.

Bristol County.

E. D. Buffington, Swansea.
M. S. Douglass, Acushnet.

Plymouth County.

C. J. Prouty, Scituate.
W. F. Stanley, Carver.
G. A. Harlow, Bridgewater.

Norfolk County.

L. W. Milliken, Franklin.

Essex County.

A. W. Beckford, Topsfield.
C. H. Preston, Danvers.
G. W. Starkey, Ipswich.
A. L. Clark, Ipswich.
W. H. Hills, Hamilton.
A. J. Savory, Ipswich.
J. P. King, Peabody.
S. S. Littlefield, Peabody.
John Ostler, Methuen.
J. I. Horton, Ipswich.
H. G. Merriam, Topsfield.

Middlesex County.

G. A. Colony, Ashby and Townsend.
F. D. Hall, Ashby.

Middlesex County — Concluded.

C. H. Barber, Framingham.
G. E. Cutler, Framingham.
C. F. Clark, East Sudbury.
A. W. Williams, Chelmsford.
E. H. Richards, Burlington.
A. C. Winn, Winchester.
H. F. Abbott, Dracut.
F. A. Griffin, Westford.
R. Bradbury, Westford.
H. E. Hersam, Stoneham.
J. W. Stinson, Ashburnham.

Worcester County.

F. F. Bullard, Worcester.
G. H. Harrington, Paxton.
A. G. Larkin, West Berlin.
C. H. Waymoth, Fitchburg.
W. H. Gibbs, Harvard.
E. B. Stoddard, Worcester.
S. F. Leonard, Grafton.
W. T. Bowers, Lunenburg.
F. W. Burleigh, East Princeton.
C. F. Foster, Leominster.
C. H. Kimball, West Boylston.
D. C. Luther, Leicester.
J. W. Fairbanks, Westborough.
T. A. E. Luke, Westminster.
C. V. Dudley, Northbridge.
G. M'Aleer, Worcester and Shrewsbury.
I. O. Converse, Ashburnham and Ashby.
C. W. Pillsbury, Ashburnham.
C. H. Steele, Worcester.
A. E. Warren, Holden.

Worcester County — Concluded.

A. A. Tisdale, Leominster.
C. H. Potter, Ashburnham.
S. W. Putnam, Fitchburg.
Frost and Whitcomb, Athol and
Phillipston.
C. W. Bates, Phillipston.
H. S. Lytle, North Brookfield.
G. A. Wallace, Lunenburg.
H. P. Gerald, Brookfield.
A. R. Page, Uxbridge.

Berkshire County.

L. B. Moore, Tyngham.
F. C. Brown, Cheshire.
R. E. Burbank, Dalton.
J. H. Wood and others, Lanes-
borough, Pittsfield, Richmond.

Berkshire County — Concluded.

J. B. Richmond, Savoy.
A. L. Phillips, Adams.
E. J. Noble, Windsor.
C. W. Burton, Cheshire.

Hampshire County.

E. H. Vaughan, Prescott.
A. F. Cutting, } Northampton
H. A. Kimball, } and vicinity.
J. E. Clark, }

DISTRIBUTION OF CARP.

E. Gannet, Canton.
S. W. Dickinson, Harvard.
A. C. Moore, Sturbridge.
J. W. Fairbanks, Westborough.
J. F. Bowditch, North River.

[D.]

LIST OF PONDS LEASED

By the Commissioners on Inland Fisheries, under Authority given by Chap. 384, Sect. 9, of the Acts of 1869.

1874.

- March 2. Upper Naumkeag Pond, in Ashburnham, to inhabitants of Ashburnham, 20 years.
May 20. Unchechewalom and Massapog Ponds, to the inhabitants of Lunenburg, 20 years.
July 11. Hazard's Pond, in Russell, to N. D. Parks and others, 20 years.

1875.

- May 1. Chilmark Pond, in Chilmark, to J. Nickerson and others, agents, 20 years
July 1. Haggett's Pond, in Andover, to inhabitants of Andover, 20 years.
Aug. 1. Oyster Pond, in Edgartown, to J. H. Smith and others, 20 years.

1876.

- May 20. Lower Naumkeag Pond, in Ashburnham, to inhabitants of Ashburnham, 18 years.
28. Phillipston Pond, in Phillipston, to inhabitants of Phillipston, 20 years.

1877.

- Oct. 1. Fort, Great Spectacle and Little Spectacle Ponds, in Lancaster, to inhabitants of Lancaster, 20 years.

1879.

- July 1. Fresh Pond, in Falmouth, to Thomas H. Lawrence, 20 years.
Oct. 1. Pomp's Pond, in Andover, to inhabitants of Andover, 15 years.

1880.

- March 1. Lake Winthrop, in Holliston, to inhabitants of Holliston, 15 years.
June 1. Jordan Pond, in Shrewsbury, to inhabitants of Shrewsbury, 15 years.
July 1. Swan and Martin's Ponds, in North Reading, to inhabitants of North Reading, 15 years.

1891.

- Jan. 1. Great and Job's Neck Ponds, in Edgartown, to Amos Smith and others, 15 years.
April 1. Long Pond, in Blandford, to Samuel A. Bartholomew and another, 15 years
May 2. Nonesuch Pond, in Weston and Natick, to W. A. Bullard and others, 15 years.

1882.

- March 1. Blair's Pond, in Blandford, to Curtis M. Blair and another, 15 years.
- April 1. Ward Pond, *alias* Wightman Pond, in Ashburnham, to Herbert F. Rockwood and another, 15 years.
- May 1. Horn Pond, in Woburn, to inhabitants of Woburn, 15 years.
- June 1. Wickaboag Pond, in West Brookfield, to inhabitants of West Brookfield, 15 years.

1883.

- April 6. Fresh Pond, in Tisbury, to Allen Look and others, 15 years.
23. Keyes Pond, in Westford, to M. H. A. Evans, 15 years.
- May 7. Singletary Pond, in Sutton and Millbury, to towns of Sutton and Millbury, 15 years.
7. The Great Pond, in Ashfield, to town of Ashfield, 15 years.

1884.

- July 15. Asneybunskeit Pond, in Paxton, to inhabitants of Paxton, 10 years.
15. Center Pond, in Dennis, to inhabitants of Becket, 10 years.
15. Buckmaster Pond, in Dedham, to Francis Soule and others, 10 years.
15. Fresh Pond, in Dennis, to inhabitants of Dennis, 10 years.
17. Farm Pond, in Cottage City, to John C. Hamblin and others, 15 years.
18. Mashpee, Great and Wakeley Ponds, in Mashpee, to inhabitants of Mashpee, 10 years.
- Aug. 30. Sand Pond, in Ayer, to inhabitants of Ayer, 15 years
- Sept. 5. Great Pond, in North Andover, to inhabitants of North Andover, 15 years.

[E.]

MASSACHUSETTS TROUT LAW.

GILBERT v. COMMONWEALTH.

Sportsmen throughout the country are familiar with the battle which has been going on in Massachusetts for several years to maintain that part of the fish and game laws covering trout. Mr. Walter S. Gilbert of Plymouth, Mass., who is engaged in the rearing of domestic trout, has several times applied to the State Legislature for a law permitting the sale of artificially reared trout during the time the law forbids the sale of wild trout. The Legislature of the State declined to enact such a law, although once both branches passed a bill in Mr. Gilbert's favor, but the measure was vetoed by Governor Russell. Mr. Gilbert determined to test the law, and caused himself to be arrested by selling trout out of season.

Mr. Gilbert was indicted by the grand jury of Plymouth county. In the Superior Court the defendant asked for several rulings upon the facts which he introduced, but the court declining to give these rulings, he submitted to a verdict of guilty and appealed to the Supreme Court, which says in its decision, "The defendant contends that the penalty imposed by the Public Statutes, chapter 91, section 53, for selling trout, does not extend to the sale of trout which have been artificially propagated and maintained. Whatever force this contention might have, if section 53 stood alone, a reference to other sections of the same chapter, and to the history of this legislation makes it clear that such trout are not exempted. The chapter contains many provisions for the protection of trout and other useful fishes, and among them are those for the encouragement of their artificial propagation and maintenance. In order to make the protection of the trout more effectual, it was deemed necessary by the Legislature to punish the sale during the close season of all trout except those which are alive. This was probably on account of the difficulty of distinguishing between trout which had been artificially propagated and maintained, and other trout. . . .

"Nor have we any doubt that the statute is constitutional. The importance of preserving from extinction or undue depletion the

trout or other useful fishes in the waters of the Commonwealth has been recognized and illustrated in many familiar statutes and decisions from an early time. Such protection has always been deemed for the 'good and welfare of this Commonwealth,' and the Legislature may pass reasonable laws to promote it. Such laws are not to be held unreasonable because owners of property may thereby to some extent be restricted in its use. It has often been declared that all property is acquired and held under the tacit condition that it shall not be so used as to destroy or greatly impair the public rights and interests of the community. The Legislature may 'make, ordain, and establish all manner of wholesome and reasonable orders, laws, statutes, and ordinances, directions and instructions, either with penalties or without; so as the same be not repugnant to this constitution, as they shall judge to be for the good and welfare of this Commonwealth.' Constitution of Massachusetts, chapter 1, section 1, article 4. The Legislature may forbid the catching or selling of useful fishes during reasonable close seasons established by them, and to extend the prohibition so as to include such as have been artificially propagated or maintained is not different in principle from legislation forbidding persons from catching fish in streams running through their own lands. The statute under consideration falls within this power." The verdict of guilty is to stand. — *Shooting and Fishing.*

[F.]

LEGISLATION.

Acts of 1893.

[CHAP. 36.]

AN ACT CODIFYING AND AMENDING THE LAWS RELATING TO THE
ALEWIFE FISHERY IN MILL AND ESSEX RIVERS IN THE TOWN OF
ESSEX.

Be it enacted, etc., as follows :

SECTION 1. The selectmen of the town of Essex for the time being, or a major part of them, are hereby empowered, in the month of March or April annually, to prescribe the time, place or places, and the manner of taking alewives in Mill river or brook and Essex river in the town of Essex, such time not to exceed three days in a week ; and they may either appoint some suitable person or persons to take the same and fix the compensation to be paid therefor, or they may in their discretion annually sell at public auction the right to take alewives in said Mill and Essex rivers, under such regulations as they may make under this section. The said selectmen are hereby authorized to offer and pay suitable rewards for the detection and punishment of persons violating the provisions of this act, and shall be entitled to reimbursement from said town of Essex or from the proceeds of the sale of said right to take said alewives, for all sums expended for the said rewards or the enforcement of this act ; and the said town of Essex, in addition to other purposes authorized by law, is authorized to raise and appropriate money for enforcing this act.

SECTION 2. The owners or occupants of dams across said Mill and Essex rivers shall annually during such time, not exceeding sixty days in each year, as shall be prescribed by the selectmen of said town or the major part of them for the time being, keep constantly open and maintain through, over or around their respective dams a passageway sufficient and proper for the passage of said fish, to the satisfaction of said selectmen, under a penalty of not less than ten nor more than sixty dollars for each and every

twenty-four hours they shall neglect to open a passageway as aforesaid ; and the said selectmen shall, thirty days at least before the commencement of said period, notify in writing the owners or occupants of said dams, of the time when the said passageways shall be opened and the manner in which they shall be constructed and regulated.

SECTION 3. The said selectmen of the town of Essex, either personally or by their agents duly authorized, shall have full power and authority to cause the natural course of the stream through which said fish pass, to be kept open and free of obstructions, except the dams aforesaid, and to remove all such obstructions except as aforesaid ; and for that purpose, as well as for the other purposes of this act, they or their agents shall have authority to go upon the land or meadow of any person through which said stream runs, without being deemed trespassers ; and if any person or persons shall molest the said selectmen or either of them, or any of their said agents, in the execution of his or their duties under this act, or shall obstruct the passage of said fish, except as aforesaid, the person or persons so offending shall, on conviction thereof before any court of competent jurisdiction in the county of Essex, be fined for every such offence not less than ten nor more than twenty dollars.

SECTION 4. Any person or persons taking any of the fish aforesaid in said Mill and Essex rivers, or in the ponds in which said fish cast their spawn, at any time or in any place or manner other than shall be allowed by said selectmen as aforesaid, or who shall receive such alewives knowing or having reasonable cause to believe that the same have been taken contrary to the provisions of this act, shall for each and every offence, on conviction thereof, be fined not less than twenty-five cents nor more than one dollar for each and every alewife so taken, or shall be imprisoned in the jail or house of correction for a period not exceeding sixty days. The possession of alewives in the woods, swamps and other lands, whether public or otherwise, in the town of Essex bordering on the said Mill and Essex rivers or its tributaries, or in the buildings over or near said Mill river or its tributaries in said town, or in any boat or other craft, cart, wagon or other vehicle in or near said Mill and Essex rivers or its tributaries, or the pond in which said fish cast their spawn, in the months of April, May or June of each year, by any person or persons other than those lawfully entitled to take the same under said regulations, shall be deemed prima facie evidence of an unlawful taking or receiving under the provisions of this act.

SECTION 5. Any deputy sheriff, police officer or constable of the town of Essex is hereby empowered to make search for and seize in said town without warrant any of said fish which he has reason to suspect were taken at any time or place or in any way prohibited by law, together with any boat or other craft, cart, wagon or other vehicle, or the cask, barrel or other vessel containing the same, which, if used in such illegal taking or receiving, are hereby declared to be forfeited. Said officer immediately after such seizure shall give public notice of the same by posting up notices thereof in two public places near the place where such seizure was made, and if no person or persons shall appear and claim said fish of such officer within twelve hours after posting said notices, said fish and the boat or other craft, cart, wagon or other vehicle, and the cask, barrel or other vessel containing the same shall be forfeited, and the same shall be sold by public auction and the net proceeds of such sale shall enure to the benefit to the town of Essex. If a claimant for such property shall appear within said twelve hours after the posting of said notices, the officer shall libel the same according to law, or at the request of said selectmen or any of them shall sell said fish or other property at public auction and libel the proceeds of such sale according to law. In case said property or proceeds are forfeited the benefit thereof shall enure to said town of Essex.

SECTION 6. From and after the passage of this act the inhabitants of said town of Essex at their annual March meeting shall determine the quantity of said fish that each family in said town shall receive, and establish the price they shall pay therefor.

SECTION 7. One third of all the forfeitures incurred by virtue of this act shall be paid to the person or persons giving information, and the remaining two thirds to the town of Essex, to be recovered in an action of contract in any court having jurisdiction of the same, to be brought by the treasurer of said town, or, if said treasurer shall neglect to bring such action for a space of ten days after being thereto requested, by the person or persons giving the information, in the name and for the sole benefit of such person or persons. The fish commissioners shall have the same control of dams on said streams as given them in chapter ninety-one of the Public Statutes.

SECTION 8. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

SECTION 9. This act shall take effect upon its passage. [*Approved February 21, 1893.*]

[CHAP. 49.]

AN ACT FOR THE BETTER PROTECTION OF QUAIL ON THE ISLAND
OF NANTUCKET.

Be it enacted, etc., as follows :

Whoever takes or kills a quail on the island of Nantucket at any time within two years from the passage of this act shall be punished by a fine of twenty dollars for every bird so taken or killed.
[Approved February 25, 1893.]

[CHAP. 55.]

AN ACT RELATING TO THE TAKING OF SCALLOPS IN THE WATERS
OF THE TOWN OF MARION.

Be it enacted, etc., as follows :

Section four of chapter one hundred and eighty-eight of the acts of the year eighteen hundred and ninety-two is hereby amended by inserting after the word "flats", in the third line of said section, the words:—and waters,—so as to read as follows:—
Section 4. All the privileges which the citizens of Rochester and Mattapoisett had before this act takes effect, to take scale and shell-fish from the shores or flats and waters within the town of Marion, shall remain the same as if this act had not passed. [Approved February 25, 1893.]

[CHAP. 77.]

AN ACT TO ESTABLISH AN ALEWIFE FISHERY IN EASTHAM.

Be it enacted, etc., as follows :

SECTION 1. William H. Nickerson, Wilber S. Cole and Austin E. Cole are hereby authorized to make the necessary improvements for the preservation and taking of alewives in the Herring pond, so-called, in the town of Eastham, and to construct an outlet from said pond to the great meadow, so-called, and through said meadow by natural creeks to the bay.

SECTION 2. The said parties shall be liable to pay all damage that shall be sustained in any way by any person in his property in carrying into effect this act. If any person sustaining damage as aforesaid shall not agree with the said parties in interest as to the amount of damage to be paid, he may have his damage assessed in the manner provided by law in respect to land taken for highways.

SECTION 3. Any fishery so created shall be deemed to be the property of the said parties and their heirs and assigns.

SECTION 4. No persons without the permission of the said parties, or their heirs or assigns, shall take, kill or haul on shore any alewives in the fishery so created by them.

SECTION 5. Whoever violates any of the provisions of this act, or any of the regulations of the said parties in interest in said fishery, shall forfeit and pay a sum not less than five nor more than fifty dollars for each offence, to be recovered by prosecution before any court in the county of Barnstable competent to try the same. Said forfeiture shall accrue to the benefit of the parties in interest in said fishery.

SECTION 6. All prosecutions under the preceding section shall be instituted within thirty days from the time the offence was committed.

SECTION 7: This act shall take effect upon its passage. [*Approved March 9, 1893.*]

[CHAP. 80.]

AN ACT PROVIDING THAT THE CLOSE SEASON FOR BLACK BASS FISHING SHALL TERMINATE ON THE FIRST DAY OF JUNE.

Be it enacted, etc., as follows:

Section fifty-six of chapter ninety-one of the Public Statutes is hereby amended by striking out in the second line thereof, the word "July", and inserting in its place the word:—June,—so as to read as follows:—*Section 56.* Whoever takes a black bass between the first day of December and the first day of June, or at any time except with naturally or artificially baited hook and hand line, or buys, sells, or has in his possession any such fish taken in this Commonwealth between said dates, or otherwise than as allowed in this chapter, shall forfeit for each offence not less than two nor more than twenty dollars: *provided, however,* that this limitation of time shall not be applicable to the Connecticut river or its tributaries. [*Approved March 10, 1893.*]

[CHAP. 96.]

RESOLVE PROVIDING FOR A PROPER REPRESENTATION OF THE COMMONWEALTH AT THE CONVENTION OF COMMISSIONERS OF FISHERIES AT CHICAGO.

Resolved, That, the United States commissioner of fisheries having called a convention of commissioners of fisheries of the various states to meet in the city of Chicago during the present year, in order to provide for the proper representation of this Commonwealth, the governor is hereby authorized to appoint the

members of the board on commissioners of inland fisheries and game of this Commonwealth as delegates to said convention. Each delegate so appointed shall be repaid from the treasury of the Commonwealth the amount of such reasonable travelling and other necessary expenses so incurred in the discharge of his official duty as the governor and council may approve, to be paid from the appropriation for incidental expenses of said commissioners, authorized by chapter sixty-four of the acts of the present year. [Approved June 3, 1893.]

[CHAP. 106.]

AN ACT TO AUTHORIZE OFFICERS QUALIFIED TO SERVE CRIMINAL PROCESSES, AND THE COMMISSIONERS ON INLAND FISHERIES AND GAME AND THEIR DEPUTIES, TO MAKE ARRESTS WITHOUT WARRANT FOR VIOLATION OF FISH AND GAME LAWS.

Be it enacted, etc., as follows :

SECTION 1. All officers qualified to serve criminal processes, and the commissioners on inland fisheries and game and their deputies, are hereby authorized and empowered to arrest without warrant any person whom they shall find violating any of the fish or game laws: *provided, however,* that persons engaged in the business of regularly dealing in the buying and selling of game as an article of commerce shall not be arrested without warrant for having in possession or selling game at their usual places of business.

SECTION 2. This act shall take effect upon its passage. [Approved March 17, 1893.]

[CHAP. 172.]

AN ACT RELATING TO THE TAKING OF SCALLOPS IN THE WATERS OF THE TOWN OF FAIRHAVEN.

Be it enacted, etc., as follows :

SECTION 1. The selectmen of the town of Fairhaven may grant permits in writing to take scallops from the waters within the limits of the said town, in such quantities, at such time or times within one year, by such methods and under such regulations as may be expressed in their permit; and they may charge and receive therefor, in behalf of and for the use of said town, such sums as they may deem proper. But every inhabitant of the state may without such permit take scallops from the waters of the town, for the use of the family, from the first day of October to the first day of April, not exceeding in any week three bushels, including the shells.

SECTION 2. No person shall take any scallops from the waters of said town without a written permit from the selectmen thereof, except as provided in the preceding section. Whosoever violates the provisions of this act shall be punished by a fine of not less than twenty nor more than one hundred dollars, or by imprisonment in the house of correction not less than thirty days nor more than six months, or by both such fine and imprisonment. One half of the fine shall be paid to the complainant and the other half to the county within which the offence was committed.

SECTION 3. Nothing in this act shall be construed to affect any acts relating to oyster fishery, or to impair the private rights of any person, or in any way to limit or affect the provisions of law for the protection of fisheries other than scallop fisheries, or to permit the taking of scallops upon any oyster grounds or beds other than public grounds or beds.

SECTION 4. District courts and trial justices shall have concurrent jurisdiction with the superior court of all offences under this act.

SECTION 5. All acts and parts of acts inconsistent herewith are hereby repealed. [*Approved April 7, 1893.*]

[CHAP. 183.]

AN ACT RELATING TO THE TAKING OF LOBSTERS.

Be it enacted, etc., as follows :

SECTION 1. Whoever, not being at the time an inhabitant of this Commonwealth, sets or keeps or causes to be set or kept in any of the waters of this Commonwealth any pot, net or trap for the catching of lobsters, shall forfeit twenty dollars for each offence, one half to the use of the complainant and one half to the use of the Commonwealth.

SECTION 2. Chapter four hundred and three of the acts of the year eighteen hundred and ninety-two is hereby repealed. [*Approved April 11, 1893.*]

[CHAP. 201.]

AN ACT TO REMOVE THE RESTRICTIONS UPON SHAD AND ALEWIFE FISHING IN THE MERRIMAC RIVER BELOW CHAIN BRIDGE.

Be it enacted, etc., as follows :

SECTION 1. All provisions of law relative to the taking of shad or alewives in the Merrimac river, so far as they relate to the taking of said fish below the bridge known as Chain bridge, between the city of Newburyport and the town of Amesbury, or the

selling of fish taken in that part of said river below said bridge, are hereby repealed: *provided, however*, that whoever uses in that part of said river below Chain bridge a gill net of any description, or a sweep seine having a mesh which stretches less than two and a quarter inches, shall forfeit twenty-five dollars for each offence, and in addition shall forfeit the fish taken and the apparatus used.

SECTION 2. This act shall take effect upon its passage. [*Approved April 15, 1893.*]

[CHAP. 205.]

AN ACT FOR THE BETTER PROTECTION OF THE FISHERIES OF BUZZARD'S BAY.

Be it enacted, etc., as follows:

SECTION 1. No traps, weirs, pounds, yards or stationary apparatus of any kind for the taking of fish, shall be set, used or maintained in the waters of Buzzard's bay, or any harbor, cove or bight thereof, and the mayor and aldermen of cities and the selectmen of towns bordering on said bay shall have no power or authority to grant licenses to construct fish weirs, or to set, use or maintain any other stationary apparatus for the taking of fish in the waters of said bay, or any harbor, cove or bight thereof; but nothing herein contained shall be construed to forbid or make unlawful the maintaining of traps, pounds or weirs under licenses heretofore granted in accordance with section seventy of chapter ninety-one of the Public Statutes, until the expiration of the terms for which said licenses were granted.

SECTION 2. Any person who shall set, use or maintain any trap, weir, pound, yard or other stationary apparatus, in violation of this act, shall be punished by a fine of not less than one hundred nor more than five hundred dollars, or by imprisonment not exceeding six months. [*Approved April 15, 1893.*]

[CHAP. 255.]

AN ACT RELATING TO THE RIGHTS OF INHABITANTS OF ROCHESTER AND MATTAPOISETT TO TAKE FISH WITHIN THE LIMITS OF THE TOWN OF MARION.

Be it enacted, etc., as follows:

SECTION 1. Nothing in chapter one hundred and eighty-eight of the acts of the year eighteen hundred and ninety-two shall be construed to require that a citizen of Mattapoisett or Rochester must obtain a permit from the selectmen of the town of Marion for taking shellfish or scale fish in the shores, flats or waters within

the town of Marion, and any inhabitant of Mattapoisett or Rochester may take scale fish or shellfish in said shores, flats and waters by obtaining a license from the selectmen of their respective towns and paying therefor the same price as is paid by the inhabitants of the town of Marion to the selectmen of the town of Marion for similar licenses. The prices to be charged for said licenses shall be fixed by the selectmen of the towns of Marion, Rochester and Mattapoisett.

SECTION 2. Nothing contained in said chapter shall be construed to affect the right of any inhabitant of the Commonwealth to take eels, scale or shellfish from said shores, flats or waters, as provided by section sixty-eight of chapter ninety-one of the Public Statutes.

SECTION 3. This act shall take effect upon its passage. [*Approved April 24, 1893.*]

[G.]

LOBSTER RETURNS.

1893.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Egg-bearing Lobsters liberated. |
|------------------------|-----------------|--------------------|------------------------------|--|
| W. H. Rowe, . . . | Annisquam, . | 8 | 293 | 4 |
| Joquin Perry, . . . | Boston, . . . | 2,565 | 145,721 | 2,966 |
| Marcus D. Moura, . . | | | | |
| Manuel B. Silva, . . | | | | |
| Jose L. Alberto, . . | | | | |
| Manuel Silva, . . . | | | | |
| Joseph Rose, . . . | | | | |
| Frank P. Silva, . . . | | | | |
| Frank Saffrain, . . | | | | |
| Andrew Ferreira, . . | | | | |
| Peter Silva, . . . | | | | |
| Antonia L. Perry, . . | | | | |
| Antonio Francis, . . | | | | |
| Antone P. Silva, . . | | | | |
| Joseph Rogers, . . . | | | | |
| Mathew Perry, . . . | | | | |
| J. K. Ferreira, . . . | | | | |
| M. E. Grace, . . . | | | | |
| Joseph Severino, . . | | | | |
| J. C. Serrillia, . . | | | | |
| Antone Silva, . . . | | | | |
| A. F. Ferreira, . . . | | | | |
| Antone P. Silva, . . | | | | |
| John M. Pinta, . . . | | | | |
| W. M. Hersey, . . . | Beverly, . . . | 85 | 6,594 | 257 |
| C. C. Foster, . . . | | | | |
| A. A. Nightingale, . . | Bournedale, . . | 110 | 8,762 | 272 |
| F. E. Leonard, . . . | | | | |
| D. B. Blackman, . . . | Brant Rock, . . | 313 | 18,344 | 193 |
| B. P. Williamson, . . | | | | |
| Henry P. Taylor, . . | | | | |
| Henry C. Phillips, . . | | | | |

Lobster Returns — Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Egg-bearing Lobsters liberated. |
|--|---------------|--------------------|------------------------------|--|
| W. F. Hitchins, . W. R. Bloomer, . J. D. Bloomer, . J. F. Eldredge, . F. Bloomer, . W. A. Bloomer, . H. F. Gould, . S. Patterson, . Otis Eldredge, . E. Ryder, . E. S. Gould, . G. N. Eldredge, . Thos. Holway, . Oscar M. Gould, . G. W. Bloomer, . | Chatham, | 899 | 25,244 | 746 |
| F. N. Smith, . F. Tilton, . W. Tilton, . L. E. Cottle, . G. F. Tilton, . Onslow Stuart, . G. H. Butler, . Rodney P. Reed, . G. H. Butler, Jr., . | Chilmark, | 219 | 9,376 | 1,091 |
| W. H. Phinney, . R. F. Swift, . A. B. Rogers, . L. S. Thurston, . Geo. Atwell, . H. A. Jordan, . Chas. Boutin, . Geo. Boutin, . Chas. Rogers, . B. F. Hodges, . | Chiltonville, | 436 | 35,751 | 725 |
| C. C. Allen, . A. Tilton & Co., . H. J. Allen, . H. J. Jamieson, . A. G. Eisner, . J. H. Tilton, . T. H. Jones, . R. W. Rotch, . O. H. Stetson, . Frank Peters, . Richard Beebe, . | Cuttyhunk, | 444 | 29,882 | 1,414 |

Lobster Returns—Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Eggs-bearing Lobsters illustrated. |
|---|----------------|--------------------|------------------------------|---|
| Hiran Jackson, . D. P. Bosworth, . G. H. Tilton, . | Chuttyhunk, . | 444 | 29,882 | 1,414 |
| J. F. Vandura, . John H. Wilber, . Warren White, . Manuel S. Thomas, Manuel S. Almae, . J. S. Enos, . John S. Rebeiro, . Wm. Deane, . Manuel P. Valine, . John Smith, . Manuel E. Salvador, Michael Mannix, . Robert Ainsley, . Frank Salvador, . Joseph Jason, Jr., . Geo. E. Artone, . Levi Cadoza, . | | | | |
| W. A. Gifford, . C. F. Manchester, . J. L. Gifford, . | | | | |
| J. F. Vandura, . John H. Wilber, . Warren White, . Manuel S. Thomas, Manuel S. Almae, . J. S. Enos, . John S. Rebeiro, . Wm. Deane, . Manuel P. Valine, . John Smith, . Manuel E. Salvador, Michael Mannix, . Robert Ainsley, . Frank Salvador, . Joseph Jason, Jr., . Geo. E. Artone, . Levi Cadoza, . | Cohasset, . | 1,260 | 87,508 | 1,243 |
| W. A. Gifford, . C. F. Manchester, . J. L. Gifford, . | | | | |
| M. L. Howes, . Wm. M. Stone, . | | | | |
| J. M. Snow, . W. E. Peterson, . Geo. F. Freeman, . F. E. Phillips, . C. E. Peterson, . F. E. Wardsworth, . E. J. Smith, . J. H. Mack, . W. E. Freeman, . O. C. Hunt, . W. B. Morse, . J. K. Burgess, . Isaac Symnes, . | Dartmouth, . | 87 | 1,538 | 130 |
| H. C. Hillman, . John Bunker, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |
| J. M. Snow, . W. E. Peterson, . Geo. F. Freeman, . F. E. Phillips, . C. E. Peterson, . F. E. Wardsworth, . E. J. Smith, . J. H. Mack, . W. E. Freeman, . O. C. Hunt, . W. B. Morse, . J. K. Burgess, . Isaac Symnes, . | Dennis, . | 45 | 2,198 | 510 |
| H. C. Hillman, . John Bunker, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |
| J. M. Snow, . W. E. Peterson, . Geo. F. Freeman, . F. E. Phillips, . C. E. Peterson, . F. E. Wardsworth, . E. J. Smith, . J. H. Mack, . W. E. Freeman, . O. C. Hunt, . W. B. Morse, . J. K. Burgess, . Isaac Symnes, . | So. Duxbury, . | 506 | 44,492 | 634 |
| H. C. Hillman, . John Bunker, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |
| H. C. Hillman, . John Bunker, . | Edgartown, . | 65 | 4,353 | 316 |
| W. A. Grew, . C. H. Ryan, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |
| W. A. Grew, . C. H. Ryan, . | W. Falmouth, . | 10 | 394 | 35 |
| W. A. Grew, . C. H. Ryan, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |
| W. A. Grew, . C. H. Ryan, . | Gay Head, . | 178 | 6,157 | 610 |
| W. A. Grew, . C. H. Ryan, . | | | | |
| W. A. Grew, . C. H. Ryan, . | | | | |

Lobster Returns—Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lob- sters taken. | No. of Egg-bear- ing Lobsters liberated. |
|--|----------------|-----------------------|-----------------------------------|--|
| J. H. Foster, . . . M. P. Cooper, . . . J. F. Cooper, . . . B. J. Altaquin, . . . S. J. Anthony, . . . Frank Colvin, . . . Francis Manning, . . . | Gay Head, . | 178 | 6,157 | 610 |
| Geo. Delano, . . . Wm. H. Tallman, . . . E. R. Lapham, . . . A. L. Jackson, . . . H. P. Tallman, . . . E. R. Peterson, . . . Thomas Pezzy, . . . Lyman Sears, . . . Chas Tallman, . . . Wilfred Keene, . . . | Green Harbor, | 504 | 32,195 | 285 |
| D. N. Mehlman, . . . Melvin Parsons, . . . Nelson Rowe, . . . Joseph Parsons, . . . E. T. Parsons, . . . Albert Parsons, . . . Joseph Douglass, . . . | Gloucester, . | 410 | 41,585 | 717 |
| Chas. Wilson, . . . A. F. Pope, . . . A. B. Cleverley, . . . A. B. Mitchell, . . . F. Smith, . . . G. W. Keppens, . . . John Reed, . . . F. & R. James, . . . J. C. Augustus, . . . E. T. Pope, . . . Daniel Souther, . . . B. F. Pope, . . . Andrew Galiano, . . . Geo. L. Hatch, . . . M McDonald, . . . J. H. Smith, . . . | Hull, . . . | 1,245 | 106,205 | 3,287 |
| A. L. Fowler, . . . B. G. Hinkson, . . . Oscar Littlefield, . . . Rust & Grant, . . . | Ipswich, . . . | 35 | 3,025 | 143 |

Lobster Returns — Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Egg-bearing Lobsters liberated. |
|--|---------------|--------------------|------------------------------|--|
| C. F. Stranger, . E. A. Ranson, . | Kingston, . | 120 | 6,300 | 50 |
| J. W. Roberts, . G. H. Woodbury, . J. J. Woodbury, . Elias Haraden, . W. H. Sargent, . A. W. Riley, . Addison Woodbury, . | Lanesville, . | 225 | 13,216 | 590 |
| W. O. Stone & Co., A. G. Lamphier, . | Lynn, . . | 75 | 5,124 | 151 |
| Geo. A. Manter, . Henry Dodge, . A. C. Sampson, . D. W. Nightingale, Thos. Jordan, . Rufus Ellis, . Walter H. Chase, . Wm. Harlow, . W. J. Nightingale, . Cornelius Briggs, . Geo. F. Bennison, . A. L. Holmes, . Geo. H. Dixon, . L. B. Briggs, . Samuel Bartlett, . W. H. Peterson, . S. J. Valler, . J. H. Valler, . Frank R. Peterson, H. A. Thomas, . S. B. Blackmer, . G. W. Holmes, . Stephen Holmes, . J. F. Bartlett, . F. B. Holmes, . | Manomet, . | 1,201 | 109,007 | 2,576 |
| James McNeary, . Chandler Lewis, . L. O. Sargent, . James Powell, . J. H. Dow, . Thos. Dow, . | Manchester, . | 175 | 7,659 | 164 |
| David Worth, . E. L. Story, . . | Magnolia, . | 285 | 19,282 | 1,094 |

Lobster Returns — Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Egg-bearing Lobsters liberated. |
|--|------------------|--------------------|------------------------------|--|
| J. B. Knowlton, . John Burnham, . W. S. Douglass, . H. K. Story, . Chas. G. Story, . | Magnolia, . | 285 | 19,282 | 1,094 |
| Isaiah Walker, . . | Millbrook, . | 40 | 2,673 | 114 |
| B. F. Stevens, . S. O. Smith, . Sans Standley, . S. P. Stone, . F. A. Frost, . J. H. Atkins, . John F. Adams, . C. H. Smethmest, . James S. Stone, . J. W. Smethers, . Wm. J. Dodd, . R. T. Millett, . J. W. Coffin, . J. G. Stacy, . S. B. Perkins, . John W. Florence, . James H. Magee, . Wm. H. Tult, . J. H. Innis, . | Marblehead, . | 660 | 56,862 | 1,372 |
| Lilburne Hiller, . W. L. Richmond, . J. J. Nye, . F. A. Bowman, . | Mattapoissett, . | 75 | 1,159 | 234 |
| J. E. Nickerson, . John Watkins, . Geo. E. Thomas, . Chas. Bates, . A. & C. Brooks, . | Nantucket, . | 160 | 7,841 | 182 |
| G. W. Taylor, . C. W. Taylor, . Samuel Covell, . C. E. Gove, . | Nahant, . | 213 | 12,114 | 176 |
| D. A. Atwood, . John Johnson, . C. H. Place, . | Nantasket, . | 200 | 16,570 | 383 |
| A. A. Pike, . . . | Newburyport, . | 15 | 271 | 24 |

Lobster Returns — Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Egg-bearing Lobsters liberated. |
|------------------------|-------------------|--------------------|------------------------------|--|
| F. H. Hayden, . . | Orleans, . . | 30 | 1,476 | 154 |
| James Deacon, . . | Plymouth, . . | 413 | 37,758 | 669 |
| E. W. Watson, . . | | | | |
| J. P. Thurston, . . | | | | |
| J. M. Watson, . . | | | | |
| H. L. Sampson, . . | | | | |
| A. M. Watson, . . | | | | |
| A. M. Watson, Jr., . . | | | | |
| J. B. Walker, . . | | | | |
| S. P. Burgess, . . | Provincetown, . . | 266 | 5,498 | 773 |
| A. S. Hadaway, . . | | | | |
| F. M. Bowley, . . | | | | |
| J. C. Lenten, . . | | | | |
| J. W. Savage, . . | | | | |
| George Lewis, . . | | | | |
| David Newcomb, . . | Pigeon Cove, . . | 199 | 12,190 | 227 |
| W. H. Kinney, . . | | | | |
| A. J. Emery, . . | | | | |
| E. Lewis & Son, . . | | | | |
| J. Kendall, . . | Quisett, . . | 11 | 102 | 9 |
| Wm. Fears, . . | | | | |
| Fred. Johnson, . . | | | | |
| C. N. Morgan, . . | | | | |
| S. F. Norwood, . . | Rockport, . . | 255 | 26,711 | 1,071 |
| Geo. E. Wendell, . . | | | | |
| Amos Lufkin, . . | | | | |
| S. G. Perkins, . . | | | | |
| Harvey Pool, . . | | | | |
| C. L. Bartlett, . . | Rowley, . . | 10 | 628 | 3 |
| A. H. Gibbs, . . | Sagamore, . . | 69 | 3,046 | 303 |
| Oscar Gibbs, . . | | | | |
| Ezra Pierce, . . | | | | |
| John Barrey, . . | Scituate, . . | 763 | 55,482 | 1,489 |
| G. F. Edson, . . | | | | |
| Thos. Dwyer, . . | | | | |
| Jesse Spooner, . . | | | | |
| Daniel Ward, . . | | | | |
| John Welch, . . | | | | |
| James Doherty, . . | | | | |

Lobster Returns — Continued.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lob- sters taken. | No. of Egg-bear- ing Lobsters liberated. |
|--|--------------------|--------------------------|-----------------------------------|--|
| Wm. Ward, . . . R. G. T. Tillgreen, . . . J. F. Cushman, . . . A. E. White, . . . Robert O'Hearne, . . . E. P. Pratt, . . . James Hughes, . . . H. H. White, . . . J. McCarty, . . . Francis Mulkerne, . . . | Scituate, . . . | 768 | 55,482 | 1,489 |
| A. E. Reed, . . . M. H. Vincent, . . . E. A. Pool, . . . H. W. Mayhew, . . . A. A. Flanders, . . . A. F. Pool, . . . Amos Haskins, . . . | Squibnocket, . . . | 108 | 7,289 | 364 |
| Edward Marsh, . . . J. F. Blaney, . . . Wm. Stillman, . . . A. G. Watts & Co., . . . J. W. Kehoe, . . . W. A. Jones, . . . Nathaniel Pierce, . . . W. B. Newcomb, . . . T. E. Stone, . . . S. Hammond & Co., . . . G. A. R. Horton, . . . Josiah Nickerson, . . . H. E. Douglass, . . . Geo. Martin, . . . L. D. Woodbury, . . . | Swampscott, . . . | 607 | 51,663 | 425 |
| G. W. Berry, Jr., . . . W. P. Foye, . . . G. W. Berry, . . . W. H. Lewis, . . . T. F. Hogan, . . . C. H. Berry, . . . John Clark, . . . H. G. Tucker, . . . | Salem, . . . | 408 | 24,054 | 611 |
| C. H. Collins, . . . R. S. Lombard, . . . | No. Truro, . . . | 75 | 720 | 87 |
| J. A. Mayhew, . . . | No. Tisbury, . . . | 137 | 3,820 | 674 |

Lobster Returns — Concluded.

| PROPRIETOR. | TOWN. | No. of Traps used. | No. of Large Lobsters taken. | No. of Eggs bearing Lobsters liberated. |
|--|----------------|--------------------|------------------------------|---|
| James R. Tillton, . L. A. Rogers, . G. H. Rogers, . G. A. Rogers, . Seth Look, . | No. Tisbury, . | 137 | 3,820 | 674 |
| H. W. McLellan, . Herbert Crocker, . A. O. Fisher, . F. O. Vincent, . M. F. Cleveland, . Fred Weeks, . Hiram Luce, . Clarence Cleveland, . Charles Foster, . | | | | |
| Antone V. Corey, . W. E. Wyman, . J. B. Wyman, . John Wardsworth, . G. M. Wyman, . | | | | |
| T. B. Pierce, . Frank Almy, . H. F. Hilt, . T. J. Brightman, . G. A. Gifford, . | | | | |
| P. W. Wainwright, . O. C. Grinnell, Jr., . J. J. Veeder, . Walter Nickerson, . N. C. Phinney, . F. R. Gifford, . Frank Peterson, . J. R. P. Purdum, . O. C. Grinnell, . P. M. Stuart, . L. L. Adams, . B. L. Gifford, . J. F. Cook, . Alfred Nickerson, . | | | | |
| Herbert Lovell, . | Yarmouthport, | 18 | 498 | 50 |
| Total men, 371, . | | 17,012 | 1,149,732 | 32,741 |

Comparison of Returns of Lobster Fisheries.

| YEAR. | No. of Men. | No. of Traps. | No. of Large Lobsters. | No. of Egg-bearing Lobsters returned to the Water alive. |
|--------------------------------|-------------|---------------|------------------------|--|
| Increase of 1892 over 1891, . | - | - | - | - |
| Decrease of 1892 below 1891, . | 15 | 1,384 | 185,027 | 12,743 |
| Increase of 1893 over 1892, . | 59 | 2,948 | 41,968 | - |
| Decrease of 1893 below 1892, . | - | - | - | 4,489 |

GILL AND SWEEP NETS.

1893.

| PROPRIETOR. | TOWN. | Shad. | Alewives. | Sea Herring. | Menhaden. |
|--------------------------------|--------------------------|-------|-----------|--------------|-----------|
| Prince Freeman, | Barnstable, | - | - | 1,198 | - |
| Isaac N. Babbitt, | Berkley, | 127 | 70,000 | - | - |
| Niles Nelson, | Brewster, | - | 159,064 | 11,550 | - |
| J. H. Winslow, | Bay View, | - | - | 34,346 | - |
| Thomas James, | Centerville, | - | - | 132,400 | - |
| J. D. Kelley, | | | | | |
| C. E. Bearse, | | | | | |
| W. W. Hallett, | | | | | |
| Wm. C. Kelley, | | | | | |
| F. G. Kelley, | | | | | |
| Geo. W. Bloomer, | | | | | |
| C. C. Nickerson, | | | | | |
| F. Bloomer, | | | | | |
| E. S. Gould, | | | | | |
| H. F. Gould, | Chatham, | 10 | 848 | 240 | 3,122 |
| O. C. Eldredge, | | | | | |
| A. Atkins, | | | | | |
| W. A. Bloomer, | | | | | |
| C. D. Hammond, | | | | | |
| W. T. Hitchings, | | | | | |
| J. S. Ryder, | | | | | |
| Benj. Peterson, | | | | | |
| Robert Alsley, | | | | | |
| J. S. Rebeiro, | | | | | |
| H. M. Smith Estate, | Chilmark, | - | 32,503 | - | - |
| W. S. Mayhew & Bro., | | | | | |
| C. N. Simmons, | | | | | |
| E. D. Perry, | | | | | |
| J. H. Hardy, | | | | | |
| A. J. Edwards, | | | | | |
| E. F. Robbins, | | | | | |
| F. R. Gifford, | | | | | |
| Joseph Douglass, | | | | | |
| W. T. Tuttle, | | | | | |
| John W. Roberts, | Dighton, | 1,321 | 874,465 | - | - |
| J. J. Woodbury, | | | | | |
| A. Morgan, | | | | | |
| A. P. Coffin, | | | | | |
| J. H. Robinson, | | | | | |
| Randall Hathaway, | | | | | |
| Henry Cotton, | | | | | |
| R. C. Glass, | | | | | |
| B. F. Stevens, | | | | | |
| J. T. Adams, | | | | | |
| S. B. Perkins, | Dennisport, | - | - | 13 | 44 |
| W. F. Ramsdell, | | | | | |
| W. I. Fisher, | | | | | |
| John Watkins, | | | | | |
| A. C. Manter, | | | | | |
| H. B. Cash, | | | | | |
| H. C. Orpin, | | | | | |
| G. G. Short, | | | | | |
| Richard Pierce, | | | | | |
| C. A. Caswell & Co., | | | | | |
| Nester Thurlow, | Falmouth, | - | - | 14,000 | - |
| Jonah Newcomb, | | | | | |
| Geo. W. Freeman, | | | | | |
| John Dolan, | | | | | |
| A. A. Mayo, | | | | | |
| Jesse Ghen, | | | | | |
| J. W. Caton, | | | | | |
| John Atkins, | | | | | |
| W. N. Elwell, | | | | | |
| Elisha Nickerson, | | | | | |
| J. H. Emery, | Gloucester, | - | - | - | - |
| C. H. Emery, | | | | | |
| R. W. Cook, | | | | | |
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| | Harwichport, | - | - | 240,983 | - |
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| | Lanesville, | - | - | 213,985 | - |
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| | Marblehead, | 216 | 1,213 | 80,100 | 550 |
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| | Medford, | - | 11,580 | 240,983 | - |
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| | Newburyport, | 2,020 | 1,261,866 | 1,744,400 | 2,610,000 |
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| | Provincetown, | 15 | 64 | 86 | 111 |
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GILL AND SWEEP NETS.

1893.

| Striped Bass. | Soup. | Squeague. | Kingfish. | Sea Bass. | Butterfish. | Bonito. | Mackerel. | Spanish Mackerel. | Bluefish. | Tautog. | Flounders and Flatfish. | Squid. | Other Edible or Bait Fish. |
|---------------|-------|-----------|-----------|-----------|-------------|---------|-----------|-------------------|-----------|---------|-------------------------|--------|----------------------------|
| - | - | - | - | - | - | - | 405 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | 5,700 | - | - | - | - | - | - |
| - | - | - | - | - | 262 | - | 138 | - | - | - | - | - | - |
| - | 43 | 108 | - | 22 | 206 | - | 23 | - | 5,000 | - | - | - | - |
| - | - | 9 | 1 | - | 218 | - | 26,262 | - | 1,369 | - | - | - | 365 |
| - | - | - | - | - | - | - | 359 | - | - | 23 | - | - | - |
| - | - | 993 | - | - | - | - | - | - | 564 | - | - | - | 100 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | 3 | - | - | - | 25 | - | 239 | - | 1,239 | - | - | - | - |
| - | - | 13 | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | 7,500 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | 2,604 | - | 99 | - | - | - | - |
| - | - | - | - | - | - | - | 1,985 | - | 225 | - | - | 225 | - |
| - | - | - | - | - | - | - | 4,042 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | 1,032 | - | 11,286 | - | - | - | - | - | 8,380 |
| - | 95 | 268 | - | 2 | 1,029 | - | 5,633 | - | 24,426 | 4 | 30 | 39 | 29 |
| - | - | - | - | - | - | - | 33 | - | - | - | 250 | - | 72,968 |

Gill and Sweep Nets — Concluded.

| PROPRIETOR. | TOWN. | Shad. | Walwies. | Sea Herring. | Menhaden. |
|--------------------------------|----------------------|-------|-----------|--------------|-----------|
| Reuben Ryder, | Provincetown, . | 667 | 955 | 357,035 | 2,400 |
| S. F. Atwood, | | | | | |
| Zephaniah Rich, | | | | | |
| Luther P. Hatch, | | | | | |
| Geo. Crosby, | | | | | |
| W. S. Ellis, | | | | | |
| Isaiah Turner, | | | | | |
| W. C. Snow, | | | | | |
| S. G. Ewell, | | | | | |
| R. G. Tarrant, | | | | | |
| G. H. Lewis, | | | | | |
| E. Q. Weeks, | | | | | |
| J. H. Little, | | | | | |
| J. E. Weeks, | | | | | |
| Thos. Lopes, | | | | | |
| J. D. Smith, | | | | | |
| Wm. Dyer, | | | | | |
| Geo. Lewis, | | | | | |
| W. H. Newcomb, | Plymouth, . | - | 41,168 | - | - |
| Joseph R. Corea, | | | | | |
| M. S. Brown, | | | | | |
| H. L. Mayo, | | | | | |
| Isaac Tyler, | | | | | |
| R. O. Kelley, | | | | | |
| B. R. Kelley, | | | | | |
| A. J. Emery, | | | | | |
| D. W. Smith, | | | | | |
| Wm. Harlow, | | | | | |
| Cornelius Briggs, | | | | | |
| E. & J. C. Barnes, | | | | | |
| J. J. Pool, | | | | | |
| Murdock Matheson, | | | | | |
| J. W. Bushey, | | | | | |
| Joseph Brown, | | | | | |
| E. C. Parsons, | | | | | |
| Martin Currier, | Pigeon Cove, . | - | 417 | 41,744 | 200 |
| C. G. Parsons, | | | | | |
| Gilbert Rich, | | | | | |
| C. W. Gott, | | | | | |
| Gustavus King, | | | | | |
| G. B. & E. Williams, | | | | | |
| Nathaniel Blanchard, | | | | | |
| Theophilus Brackett, | | | | | |
| G. A. R. Horton, | | | | | |
| Richard Hoar, | | | | | |
| James Edson, | | | | | |
| John Welch, | | | | | |
| Geo. F. Edson, | | | | | |
| Samuel Hardy, | | | | | |
| O. W. Grozier, | | | | | |
| I. Atwood, | | | | | |
| J. A. Cobb, | | | | | |
| Geo. T. Lewis, | | | | | |
| B. F. Lombard, | Rockport, . | - | 100 | 36,755 | - |
| W. W. Freeman, | | | | | |
| R. S. Lombard, | | | | | |
| F. D. Grinnell, | | | | | |
| Sam'l A. Boan, | | | | | |
| J. M. Soule, | | | | | |
| Phillip S. Tripp, | | | | | |
| S. W. White, | | | | | |
| C. F. Hilt, | | | | | |
| J. J. Austin, | | | | | |
| A. G. Allen, | | | | | |
| Edward Snell, | | | | | |
| H. F. Atwood, | | | | | |
| Herbert Lovell, | | | | | |
| Sylvanus Robbins, | | | | | |
| H. F. Crowell, | | | | | |
| Totals, 136, | Truro, | - | - | - | - |
| | Westport, | 1 | 70,283 | 2,430 | 593 |
| | Wellfleet, | - | - | - | - |
| | Yarmouth, | 1 | 48,555 | - | 25 |
| | | 5,034 | 3,338,735 | 2,864,914 | 2,663,496 |

Gill and Sweep Nets — Concluded.

| Striped Bass. | Scup. | Squeteague. | Kingfish. | Sea Bass. | Butterfish. | Bonito. | Mackerel. | Spanish Mackerel. | Bluefish. | Tautog. | Flounders and Flatfish. | Squid. | Other Edible or Salt Fish. |
|---------------|-------|-------------|-----------|-----------|-------------|---------|-----------|-------------------|-----------|---------|-------------------------|--------|----------------------------|
| - | - | - | - | 42 | 500 | 2 | 190,664 | 70 | 23,309 | 43 | 65,711 | 1 | 9,860 |
| - | - | - | - | - | - | - | 889 | - | - | - | - | - | - |
| - | - | - | - | - | 76 | - | 11,358 | - | - | - | - | 90 | - |
| - | - | - | - | - | - | - | 3,169 | - | - | - | - | - | 40,000 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | 3,958 | - | - | - | 121 | 18 | 17,866 |
| - | - | - | - | - | 414 | - | 2,612 | 1 | - | - | - | - | 100 |
| - | - | - | - | - | 89 | - | 11,725 | - | 1,068 | 5 | - | - | - |
| 1 | - | - | - | - | - | - | - | - | - | - | 515 | - | 25,912 |
| - | - | - | - | - | - | - | 417 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | 1,410 | - | 7 | - | - | - | - |
| 1 | 141 | 1,391 | 1 | 66 | 3,880 | 2 | 301,401 | 71 | 56,381 | 75 | 66,627 | 382 | 175,860 |

POUNDS AND WEIRS.

1893.

| PROPRIETOR. | TOWN. | Salmon. | Shad. | Alewives. | Sea Herring. | Menhaden. | Striped Bass. |
|----------------------------|------------------|---------|-------|-----------|--------------|-----------|---------------|
| Alexander Sargent, . . | Bay View, . . | - | 956 | 5,635 | 676,620 | - | - |
| Thomas Neville, . . | Beverly, . . | - | 409 | 26,406 | 241,350 | 8,155 | - |
| Wm. Elwell, . . | | | | | | | |
| T. Ellis & Co., . . | Brewster, . . | 3 | 81 | 1,200 | 95,223 | 2,800 | 14 |
| James Eldredge, . . | | | | | | | |
| F. D. Atwood, . . | | | | | | | |
| S. W. Gould & Co., . . | Chatham, . . | 4 | 1,346 | 94,168 | 630,497 | 34,655 | 11 |
| Geo. W. Crowell, . . | | | | | | | |
| Benj. Mallows, . . | | | | | | | |
| S. F. Bearse & Co., . . | | | | | | | |
| J. W. Eldredge, . . | | | | | | | |
| Reed, Loveland & Co., . . | | | | | | | |
| R. O. Pool & Co., . . | Chilmark, . . | - | 47 | 27,899 | 103,025 | 10,802 | 1 |
| R. Flanders and Co., . . | | | | | | | |
| Daniel Vincent, . . | | | | | | | |
| W. S. Mathews, . . | So. Dartmouth, | - | 431 | 229,599 | 9,933 | 57,300 | 250 |
| E. D. Howland, . . | | | | | | | |
| Nicholas Prialux, . . | | | | | | | |
| Geo. Prialux, . . | | | | | | | |
| Benj. Queriple, . . | | | | | | | |
| Tallman & Gifford, . . | | | | | | | |
| J. F. Briggs, . . | | | | | | | |
| C. F. & J. Manchester, . . | | | | | | | |
| Wall & Smith, . . | | | | | | | |
| Snell & Butts, . . | | | | | | | |
| A. R. Reed, . . | | | | | | | |
| Geo. A. Snell, . . | | | | | | | |
| Thomas Howes, . . | Dennis, . . | 2 | 481 | 11,089 | 337,725 | 50,861 | - |
| A. T. Chase, . . | | | | | | | |
| Zenas H. Baker, . . | | | | | | | |
| Thatcher Kelley, . . | | | | | | | |
| Alonzo K. Higgins, . . | Eastham, . . | - | 38 | 20,633 | 173,502 | 274 | - |
| Peter Higgins, . . | | | | | | | |
| R. H. Horton, . . | | | | | | | |
| Wm. H. Nickerson, . . | | | | | | | |
| H. J. Allen, . . | Gosnold, . . | - | 16 | 11,650 | 27 | 8,368 | 3 |
| Henry Daggett, . . | | | | | | | |
| J. P. Holmes, . . | | | | | | | |
| A. B. Veeder & Co., . . | | | | | | | |
| John Manley, . . | | | | | | | |
| Wm. Shepard & Co., . . | | | | | | | |
| Peter B. Davis, . . | | | | | | | |
| C. B. Coombes & Co., . . | | | | | | | |
| C. C. Church & Co., . . | | | | | | | |
| C. W. Tibbets, . . | Gloucester, . . | 1 | 166 | 125,565 | 55,880 | 5,330 | 1 |
| Douglass & Hodgkins, . . | | | | | | | |
| Benj. F. Brazier, . . | | | | | | | |
| Joseph Parsons, . . | Gay Head, . . | - | - | 800 | - | - | 1 |
| Wm. L. Pease & Co., . . | | | | | | | |
| D. F. Weeks, . . | Harwichport, . . | - | 491 | 13,496 | 39,700 | 40,539 | 1 |
| Elisha H. Bearse, . . | | | | | | | |
| Thomas Weston, . . | Hingham, . . | - | - | 6 | - | - | - |

POUNDS AND WEIRS.

1893.

| Soup. | Squeteague. | Klingfish. | Sea Bass. | Butterfish. | Bonito. | Mackerel. | Spanish Mackerel. | Bluefish. | Tanlog. | Flounders and Flatfish. | Squid. | Other Edible or Salt Fish. |
|-----------|-------------|------------|-----------|-------------|---------|-----------|-------------------|-----------|---------|-------------------------|---------|----------------------------|
| - | - | - | - | 3,575 | - | 30,405 | - | 2,596 | 28 | 3,286 | 703 | 6,880 |
| 4 | - | - | - | 3,719 | - | 24,167 | - | - | 63 | 283 | 9,450 | 133 |
| - | - | - | - | - | 2 | 11,514 | - | 1,188 | 623 | 1,684 | - | 12 |
| 52,984 | 1,934 | 4 | 103 | 13,855 | 2 | 41,663 | - | 6 | 1,996 | 9,223 | 74,726 | 639 |
| 217,048 | 21,123 | 16 | 6,272 | 10,709 | 110 | 88,974 | 2 | 78 | 511 | 5,429 | 75,922 | 18 |
| 161,807 | 86,130 | 181 | 681 | 91,257 | 77 | 17,531 | - | 426 | 12,368 | 97,783 | 80,579 | 17,184 |
| 236 | 416 | 2 | - | 289 | 16 | 23,360 | 1 | 124 | 284 | 1,523 | 146,275 | 62,298 |
| 1 | - | - | - | 7,724 | - | 15,726 | - | 5,294 | 253 | 7,590 | 590 | 2,544 |
| 1,128,267 | 86,428 | - | 68,748 | 144,557 | 52 | 4,001 | - | 38 | 737 | 4,814 | 40,065 | 397,330 |
| 1 | - | - | - | 315 | - | 10,977 | - | - | 1 | 50 | 180 | - |
| 71,809 | 4,811 | - | 1,642 | 8,000 | 4 | 21,228 | - | - | - | 535 | - | - |
| 14,996 | 4,984 | 4 | 20 | 28,020 | 20 | 70,417 | 1 | 441 | 1,518 | 5,116 | 47,645 | 11,304 |
| - | - | - | - | - | - | - | - | - | - | - | - | 354 |

Pounds and Weirs—Concluded.

| PROPRIETOR. | TOWN. | Salmon. | Shad. | Alewives. | Sea Herring. | Menhaden. | Striped Bass. |
|------------------------|-------------------|---------|--------|-----------|--------------|-----------|---------------|
| F. A. Tarr, . . . | Magnolia, . . | - | 2,501 | 13,500 | 709,025 | 17,900 | - |
| Alphonzo Tarr, . . | | | | | | | |
| E. W. Heath, . . . | Manchester, . . | - | - | 23,476 | 450,481 | 3,430 | - |
| Jones Brothers, . . | | | | | | | |
| Chas. E. Rogers, . . | Marblehead, . . | - | - | - | - | - | - |
| Stephen Holmes, . . | Manomet, . . . | - | - | 4 | 2 | 4 | - |
| A. L. Walker, . . . | Orleans, . . . | - | - | - | 172 | - | - |
| I. B. Lewis, . . . | Provincetown, . | - | 4,635 | 31,600 | 1,952,189 | 284,237 | - |
| J. A. Lewis, . . . | | | | | | | |
| H. J. Lewis, . . . | | | | | | | |
| T. K. Paine, . . . | | | | | | | |
| J. C. P. Harvender, . | | | | | | | |
| Solomon Bangs, . . | | | | | | | |
| I. W. Lewis, . . . | | | | | | | |
| Avard L. Smith, . . | Sandwich, . . . | - | 976 | 4,000 | 6,900 | 55,530 | - |
| Robert S. Perry, . . | | | | | | | |
| Isalah Spindell & Co., | | | | | | | |
| A. F. Nesbitt, . . . | Swampscott, . . | - | - | - | 509,554 | - | - |
| Chas. B. Jones, . . | | | | | | | |
| Bartimus Luce, . . . | Squibnocket, . . | - | 6 | 1,940 | 33,904 | 250 | - |
| F. W. Luther, . . . | Somerset, . . . | - | - | - | - | - | - |
| Warren Cove Weir Co., | Sagamore, . . . | - | - | - | 28,400 | - | - |
| H. N. Luce, . . . | Tisbury, . . . | 2 | 468 | 31,483 | 21,829 | 2,317 | 206 |
| O. S. Daggett, . . . | | | | | | | |
| Jason Luce & Co., . . | | | | | | | |
| Edward Cottle, . . . | | | | | | | |
| N. B. Rich, . . . | Truro, . . . | - | 264 | 66,902 | 10,563,354 | 86,780 | - |
| Wm. F. Baker, . . . | | | | | | | |
| S. B. Rich, . . . | | | | | | | |
| D. B. Rich, . . . | | | | | | | |
| P. L. Paine, . . . | | | | | | | |
| Atkin Hughes, . . . | | | | | | | |
| C. H. Collins, . . . | | | | | | | |
| L. B. Atwood, . . . | | | | | | | |
| David Blatchford, . . | | | | | | | |
| R. A. Rich, . . . | | | | | | | |
| W. D. Cleveland, . . | Vineyard Haven, . | - | 1 | 49,385 | 96 | 1,860 | 18 |
| O. D. Bradley, . . . | | | | | | | |
| C. B. Cleveland, . . | | | | | | | |
| Isalah Spindell, . . . | Wood's Holl, . . | - | 35 | 25,867 | 3,010 | 910,334 | 2 |
| J. J. Veeder, . . . | | | | | | | |
| John Rogers, . . . | | | | | | | |
| P. M. Stuart, . . . | | | | | | | |
| Theodore Brown, . . | Wellfleet, . . . | - | 92 | 600 | 254,500 | 23,000 | - |
| Wm. F. Doane, . . . | | | | | | | |
| N. B. Rich, . . . | | | | | | | |
| Roland Kelley, . . . | Yarmouth, . . . | - | - | - | - | 1,300 | 45 |
| Totals, 99, . . . | | 12 | 13,440 | 816,841 | 16,895,378 | 1,615,025 | 561 |

Pounds and Weirs — Concluded.

| Soup. | Squeteague. | Kingfish. | Sea Bass. | Butterfish. | Bonito. | Mackerel. | Spanish Mackerel. | Bluefish. | Tautog. | Flounders and Flatfish. | Squid. | Other Edible or Bait Fish. |
|-----------|-------------|-----------|-----------|-------------|---------|-----------|-------------------|-----------|---------|-------------------------|-----------|----------------------------|
| - | - | - | - | 2,084 | - | 63,736 | - | 12 | - | - | 4,200 | - |
| - | - | - | - | 1,892 | - | 16,265 | - | - | 7 | - | - | - |
| - | - | - | - | 1,474 | - | 11,526 | - | - | - | - | - | - |
| - | - | - | - | 3 | - | 140 | - | - | - | - | - | 160 |
| - | - | - | - | 23,000 | - | 2,655 | - | 547 | 15 | - | 7,000 | 1 |
| 41 | 4 | - | - | 8,207 | 14 | 87,410 | 2,000 | 8 | 280 | 47,826 | 479,613 | 50,720 |
| 9 | - | - | - | 8,450 | - | 422,848 | - | 207 | 525 | 440 | 62,950 | 25 |
| - | - | - | - | 800 | - | 42,457 | - | - | - | - | - | 1,000 |
| 55,921 | 15,987 | 5 | 4,501 | 8,458 | 37 | 50,903 | - | 91 | 83 | 4,504 | 5,466 | - |
| - | - | - | - | - | - | - | - | - | - | - | - | 67,129 |
| - | - | - | - | - | - | 93,383 | - | - | 3 | - | - | - |
| 194,249 | 18,276 | 251 | 2,689 | 8,233 | 210 | 53,055 | 1 | 699 | 1,348 | 11,008 | 26,378 | - |
| 19 | 2 | - | 8 | 121,101 | 58 | 1,030,411 | 3 | 1,676 | 832 | 50,765 | 1,285,776 | 31,168 |
| 86,800 | 8,839 | - | 508 | 49,250 | 26 | 4,779 | - | 22 | 40 | 7,197 | 179,000 | 617 |
| 232,564 | 55,964 | 57 | 5,121 | 96,499 | 128 | 7,985 | 3 | 206 | 9,300 | 17,761 | 90,635 | 1,502 |
| - | - | - | - | 35,038 | 1 | 32,667 | - | 2,118 | 4,084 | 7,305 | 26,000 | - |
| - | - | - | - | - | - | 3,612 | - | 70 | - | - | - | - |
| 2,216,406 | 304,896 | 520 | 90,288 | 676,459 | 757 | 2,283,685 | 2,011 | 15,842 | 34,894 | 284,122 | 2,643,123 | 651,018 |

Comparison of Returns for the Years 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

| Year. | Fishes. | | No. | Shad. | Alewives. | Sea Herring. | Menhaden. | Striped Bass. | Goup. | Blueback. | Mackerel. | Spanish Mackerel. | Bluefish. | Tautog. | Flounders and Flatfish. | Gaid. | Other Edible or Bait Fish. |
|-------|-------------------------------------|-----|--------|-----------|------------|--------------|-----------|---------------|---------|-----------|-----------|-------------------|-----------|---------|-------------------------|-----------|----------------------------|
| | Kind. | No. | | | | | | | | | | | | | | | |
| 1882. | Pounds and wells. | 86 | 27,760 | 1,420,919 | 1,201,449 | 8,102 | 4,219 | 1,991,490 | 67,266 | 3,289,512 | 310 | 183,908 | 40,512 | 114,848 | 4,016 | - | - |
| 1883. | " | 87 | 6,994 | 1,250,283 | 339,116 | 4,048,022 | 2,376 | 1,848,583 | 92,671 | 4,756,490 | 246 | 60,182 | 33,481 | 184,387 | 6,381 | - | - |
| 1884. | " | 83 | 6,392 | 715,886 | 2,806,203 | 3,083,351 | 6,950 | 1,641,129 | 74,826 | 1,440,486 | 99 | 109,984 | 23,920 | 288,930 | 83,980 | - | - |
| 1885. | " | 80 | 18,068 | 1,066,148 | 6,564,919 | 6,255 | 1,365 | 1,240,630 | 3,746 | 2,643,190 | 24 | 32,575 | 47,231 | 317,082 | 7,741 | 128,068 | - |
| 1886. | " | 88 | 15,874 | 1,012,802 | 1,364,984 | 48,910 | 2,412 | 1,066,248 | 3,228 | 1,290,466 | 20 | 17,315 | 47,490 | 261,565 | 11,570 | 572,334 | - |
| 1887. | " | 82 | 14,044 | 1,453,820 | 1,713,846 | 127,951 | 1,233 | 2,168,504 | 15,742 | 1,069,609 | 109 | 44,204 | 86,075 | 804,492 | 7,615 | 812,810 | - |
| 1888. | " | 83 | 50,057 | 1,054,607 | 6,665,698 | 1,202,777 | 2,455 | 1,448,451 | 127,602 | 2,877,768 | 115 | 38,376 | 63,214 | 358,917 | 10,805 | 2,716,992 | - |
| 1889. | " | 103 | 25,591 | 1,417,960 | 17,000,308 | 1,203,669 | 4,924 | 1,331,673 | 36,043 | 825,152 | 524 | 17,287 | 69,719 | 289,963 | 20,163 | 1,569,924 | - |
| 1890. | " | 88 | 22,961 | 1,198,561 | 4,432,690 | 2,911,970 | 6,302 | 354,423 | 43,988 | 1,297,264 | 1,242 | 60,633 | 25,637 | 210,476 | 9,190 | 958,872 | - |
| 1891. | " | 87 | 26,537 | 2,089,107 | 10,643,504 | 1,976,856 | 1,413 | 3,160,446 | 98,749 | 3,045,814 | 323 | 28,355 | 33,476 | 389,416 | 17,511 | 569,794 | - |
| 1892. | " | 83 | 14,658 | 1,631,100 | 15,739,505 | 1,24,917 | 1,410 | 2,421,965 | 70,065 | 4,706,233 | 47 | 16,296 | 45,881 | 346,772 | 8,069 | 1,688,990 | - |
| 1893. | " | 99 | 13,440 | 816,841 | 16,895,378 | 1,615,025 | 561 | 2,216,406 | 304,866 | 2,283,685 | 2,011 | 16,842 | 34,894 | 284,122 | 2,643,123 | 1,419,042 | - |
| 1889. | Traps, fykes and irregular returns. | 8 | - | 6,150 | 252,685 | 7,750 | - | - | - | 288,466 | - | - | - | - | 3,123 | 3,544 | - |
| 1890. | Traps, fykes and irregular returns. | 15 | 2,994 | 89,516 | 1,212,942 | 184,239 | 64 | 86 | 54 | 64,938 | 13 | 2,690 | 839 | 2,246 | 2,090 | 76,073 | - |
| 1892. | Gill nets and sea seines. | 123 | 1,738 | 424,630 | 310,611 | 633 | 1,427 | 99,046 | 4,205 | 587,087 | 87 | 191,068 | 6,245 | 33,487 | 3,033 | - | - |
| 1893. | " | 112 | 26 | 41,996 | 70,680 | 937,627 | 838 | 6,254 | 1,102 | 392,535 | 4 | 131,818 | 966 | 12,681 | 1,755 | - | - |
| 1894. | " | 85 | 6,544 | 67,312 | 641,089 | 1,526 | 602 | 7,855 | 3,254 | 216,820 | 6 | 136,003 | 1,578 | 19,031 | 2,428 | - | - |
| 1895. | " | 78 | 444 | 117,674 | 82,161 | 9,646 | 601 | 26,954 | 1,656 | 183,156 | 1 | 101,371 | 283 | 30,918 | 967 | 5,454 | - |
| 1896. | " | 49 | 22 | 397,737 | 151,789 | 311 | 1,524 | 13,019 | 42 | 75,453 | 9 | 32,343 | 1,089 | 14,592 | 21,670 | 17,398 | - |
| 1897. | " | 35 | 901 | 347,109 | 779,211 | 57 | 601 | 476 | 2,586 | 177,401 | 8 | 22,018 | 487 | 14,206 | 30,416 | 1,708 | - |
| 1898. | " | 149 | 92,010 | 468,984 | 734,374 | 94,310 | 1,346 | 7,704 | 2,097 | 633,627 | 2,172 | 199,548 | 1,314 | 30,738 | 18,701 | 69,049 | - |
| 1899. | " | 263 | 4,433 | 467,445 | 337,054 | 292,094 | 1,431 | 1,092 | 1,546 | 271,917 | 117 | 55,718 | 2,576 | 38,745 | 189,360 | 80,008 | - |
| 1900. | " | 163 | 1,448 | 17,4213 | 686,948 | 239,474 | 1,980 | 2,289 | 1,141 | 239,863 | 1,468 | 181,401 | 754 | 29,850 | 81,979 | 84,449 | - |
| 1901. | " | 94 | 8,206 | 161,563 | 335,641 | 45,624 | 689 | 689 | 835 | 168,150 | 89 | 34,254 | 80 | 76,824 | 10,386 | 24,524 | - |
| 1902. | " | 91 | 214 | 444,024 | 967,667 | 1,927 | 229 | 1,938 | 360 | 685,119 | 1 | 48,100 | 95 | 75,614 | 14,220 | 23,711 | - |
| 1903. | " | 121 | 910 | 291,461 | 1,120,514 | 52,496 | 1 | 141 | 1,391 | 801,568 | 71 | 56,381 | 75 | 66,377 | 382 | 106,661 | - |
| 1892. | Connecticut River seines. | 3 | 2,770 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1893. | " | 4 | 3,591 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1894. | " | 2 | 1,598 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| Year | Species | Number | Weight (lb) | Value (\$) | Notes |
|------|---------------------------|--------|-------------|------------|-------|
| 1895 | " | 1 | 1,718 | - | |
| 1896 | " | 1 | 577 | - | |
| 1897 | " | 1 | 860 | - | |
| 1898 | " | 1 | 824 | - | |
| 1899 | " | 1 | 796 | - | |
| 1900 | " | 1 | 58 | - | |
| 1892 | Merrimac River seines, | 4 | 387 | 2,800 | |
| 1893 | " | 2 | 146 | - | |
| 1894 | " | 2 | 111 | - | |
| 1895 | " | 2 | 130 | - | |
| 1896 | " | 1 | 73 | - | |
| 1897 | " | 1 | 28 | - | |
| 1898 | " | 1 | - | - | |
| 1899 | " | 5 | 182 | 600 | |
| 1890 | " | 6 | 57,755 | 362,482 | |
| 1891 | " | 8 | 369,350 | 149,600 | |
| 1892 | " | 2 | 238,100 | 2,479,372 | |
| 1893 | " | 4 | 2,020 | 1,261,566 | |
| 1894 | " | 11 | 1,173 | 1,039,772 | |
| 1895 | " | 11 | 5,012 | 1,123,473 | |
| 1896 | " | 10 | 4,037 | 969,736 | |
| 1897 | " | 10 | 4,964 | 1,267,479 | |
| 1898 | " | 8 | 2,620 | 962,680 | |
| 1899 | " | 8 | 4,550 | 863,278 | |
| 1900 | " | 10 | 6,363 | 902,619 | |
| 1892 | Taunton River seines, | 13 | 7,329 | 1,033,417 | |
| 1893 | " | 10 | 4,836 | 870,081 | |
| 1894 | " | 9 | 2,451 | 1,140,008 | |
| 1895 | " | 12 | 2,056 | 641,703 | |
| 1896 | " | 6 | 2,104 | 1,238,775 | |
| 1897 | " | 25 | 897 | 1,568,659 | |
| 1898 | " | 23 | 391 | 1,762,960 | |
| 1899 | " | 13 | 22 | 610,847 | |
| 1900 | " | 13 | 3 | 1,296,449 | |
| 1892 | Other fresh water seines, | 7 | 300 | 797,565 | |
| 1893 | " | 5 | - | 454,409 | |
| 1894 | " | 19 | 6 | 1,026,042 | |
| 1895 | " | 8 | - | 613,001 | |
| 1896 | " | 6 | - | 738,310 | |
| 1897 | " | 9 | - | 1,251,994 | |
| 1898 | " | 5 | - | 794,936 | |
| 1899 | " | 5 | - | - | |
| 1900 | " | 5 | - | - | |
| 1892 | " | 198 | 490 | 11,630 | |
| 1893 | " | 250 | 38 | 56,130 | |
| 1894 | " | - | - | 13,178 | |
| 1895 | " | - | - | - | |
| 1896 | " | - | - | - | |
| 1897 | " | - | - | - | |
| 1898 | " | - | - | - | |
| 1899 | " | - | - | - | |
| 1900 | " | - | - | - | |
| 1892 | " | 1,166 | 6,727 | 8,398 | |
| 1893 | " | - | - | - | |
| 1894 | " | - | - | - | |
| 1895 | " | - | - | - | |
| 1896 | " | - | - | - | |
| 1897 | " | - | - | - | |
| 1898 | " | - | - | - | |
| 1899 | " | - | - | - | |
| 1900 | " | - | - | - | |
| 1892 | " | 25 | 897 | 1,568,659 | |
| 1893 | " | 23 | 391 | 1,762,960 | |
| 1894 | " | 13 | 22 | 610,847 | |
| 1895 | " | 13 | 3 | 1,296,449 | |
| 1896 | " | 7 | 300 | 797,565 | |
| 1897 | " | 5 | - | 454,409 | |
| 1898 | " | 19 | 6 | 1,026,042 | |
| 1899 | " | 8 | - | 613,001 | |
| 1900 | " | 6 | - | 738,310 | |
| 1892 | " | 9 | - | 1,251,994 | |
| 1893 | " | 5 | - | 794,936 | |
| 1894 | " | 5 | - | - | |
| 1895 | " | 5 | - | - | |
| 1896 | " | 5 | - | - | |
| 1897 | " | 5 | - | - | |
| 1898 | " | 5 | - | - | |
| 1899 | " | 5 | - | - | |
| 1900 | " | 5 | - | - | |

Comparison of Returns for the Years 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

| YEAR. | FISHERIES. | | Blad. | Alewives. | Sea Herring. | Menhaden. | Striped Bass. | Soup. | Bqueleague. | Mackerel. | Spanish Mackerel. | Bluefish. | Tautog. | Flounders and Plaice. | Bquid. | Other Edible or Bait Fish. |
|------------------------------|---------------------------|-----|---------|-----------|--------------|-----------|---------------|-----------|-------------|-----------|-------------------|-----------|---------|-----------------------|-----------|----------------------------|
| | Kind. | No. | | | | | | | | | | | | | | |
| 1882, | Other fresh-water selhes. | 5 | - | 545,613 | - | - | - | - | - | - | - | - | - | - | - | - |
| 1882, | Total returns, | 201 | 44,734 | 4,446,280 | 1,612,060 | 8,735 | 5,929 | 2,000,526 | 71,471 | 3,875,599 | 397 | 325,473 | 46,757 | 148,330 | 7,049 | - |
| 1883, | " | 239 | 15,160 | 4,178,682 | 418,665 | 4,985,649 | 5,080 | 1,854,837 | 93,773 | 5,149,025 | 250 | 191,997 | 36,807 | 197,068 | 7,118 | - |
| 1884, | " | 205 | 17,099 | 2,863,781 | 3,347,892 | 5,009,907 | 7,582 | 1,649,984 | 78,080 | 1,657,315 | 106 | 245,762 | 30,507 | 307,971 | 36,408 | - |
| 1885, | " | 184 | 25,247 | 3,747,750 | 6,646,770 | 15,801 | 1,881 | 1,267,484 | 19,402 | 2,826,346 | 26 | 183,946 | 47,464 | 348,080 | 8,708 | 184,152 |
| 1886, | " | 124 | 19,466 | 3,183,741 | 1,620,466 | 49,221 | 3,936 | 1,275,262 | 3,268 | 1,395,850 | 29 | 55,081 | 48,678 | 276,187 | 68,872 | 590,689 |
| 1887, | " | 112 | 19,292 | 3,108,642 | 2,345,632 | 97,510 | 1,833 | 2,144,973 | 18,387 | 1,057,565 | 112 | 66,422 | 89,065 | 320,220 | 60,071 | 818,639 |
| 1888, | " | 264 | 149,200 | 3,707,929 | 7,090,493 | 1,556,036 | 3,275 | 1,672,610 | 129,850 | 3,891,393 | 2,489 | 240,874 | 70,523 | 432,710 | 40,634 | 2,876,420 |
| 1889, | " | 352 | 40,461 | 3,617,929 | 14,919,159 | 4,826,352 | 6,414 | 1,335,621 | 40,642 | 1,161,107 | 964 | 75,065 | 72,634 | 327,964 | 221,583 | 2,015,993 |
| 1890, | " | 291 | 29,303 | 3,058,920 | 5,482,120 | 6,681,804 | 7,282 | 356,712 | 45,184 | 1,507,617 | 2,780 | 242,064 | 26,391 | 240,920 | 102,789 | 1,112,320 |
| 1891, | " | 202 | 37,346 | 4,954,822 | 11,108,745 | 4,500,052 | 1,642 | 816,935 | 99,284 | 3,209,564 | 412 | 83,609 | 33,556 | 416,240 | 38,977 | 564,118 |
| 1892, | " | 193 | 16,928 | 3,179,923 | 17,241,072 | 126,744 | 2,273 | 2,123,923 | 70,345 | 5,394,362 | 48 | 64,396 | 45,940 | 423,541 | 38,194 | 1,920,997 |
| 1893, | " | 235 | 18,474 | 4,155,576 | 19,760,292 | 4,277,520 | 562 | 2,216,547 | 306,287 | 2,585,086 | 2,082 | 72,223 | 34,969 | 350,749 | 2,643,405 | 1,568,571 |
| Increase of 1885 over 1884. | | | 7,548 | 1,363,969 | 3,196,878 | 294,106 | 5,701 | 381,500 | - | 1,100,031 | - | 111,816 | 16,967 | 40,059 | 27,668 | - |
| Decrease of 1885 below 1884. | | | 21 | - | - | - | - | - | 58,678 | - | 80 | - | - | - | - | - |
| Increase of 1886 over 1885. | | | - | - | - | 38,420 | 2,005 | 711,778 | - | 1,430,496 | 4 | - | 1,214 | - | 50,164 | 456,507 |
| Decrease of 1886 below 1885. | | | 60 | 5,881 | 564,009 | 5,026,304 | - | - | 16,134 | - | - | 78,915 | - | 71,843 | - | - |
| Increase of 1887 over 1886. | | | - | - | 828,166 | 48,290 | - | 165,711 | 16,089 | 338,285 | - | 11,391 | 40,387 | 44,033 | 8,801 | 227,980 |
| Decrease of 1887 below 1886. | | | 12 | 75,099 | - | - | 2,103 | - | - | - | 83 | - | - | - | - | - |
| Increase of 1888 over 1887. | | | 152 | 120,908 | 6,323,861 | 1,438,820 | 1,442 | 472,865 | 111,493 | 2,743,828 | 2,377 | 174,452 | 18,542 | 112,490 | 9,437 | 2,556,761 |
| Decrease of 1888 below 1887. | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| | | | | | | | | | | | | | | | | | | |
|------------------------------|----|---|---------|---|------------|------------|-------|-----------|---------|--------|-----------|-------|---------|---|--------|---|---------|-----------|
| Increase of 1889 over 1888. | 88 | - | 108,739 | - | 12,249,666 | 2,760,316 | 3,139 | 336,789 | 89,308 | - | 2,940,286 | 1,795 | 165,179 | - | 2,111 | - | 180,949 | 859,427 |
| Decrease of 1889 below 1888. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Increase of 1890 over 1889. | 61 | - | 11,168 | - | 579,009 | 14,437,089 | 868 | 979,109 | 4,488 | - | 346,510 | 2,036 | 166,339 | - | 46,243 | - | 118,794 | 903,673 |
| Decrease of 1890 below 1889. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Increase of 1891 over 1890. | 89 | - | 2,492 | - | 1,915,902 | 5,626,625 | - | 2,804,223 | 53,754 | - | 1,701,947 | 2,318 | 188,425 | - | 7,165 | - | 175,820 | 518,202 |
| Decrease of 1891 below 1890. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Increase of 1892 over 1891. | 9 | - | 20,418 | - | 1,774,869 | 6,132,337 | 631 | 737,012 | - | 28,989 | 2,184,788 | - | 19,312 | - | 12,384 | - | 7,301 | 1,026,879 |
| Decrease of 1892 below 1891. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Increase of 1893 over 1892. | 42 | - | 1,546 | - | 975,653 | 2,519,220 | - | - | 235,942 | - | - | 2,034 | 7,827 | - | 10,971 | - | 297,805 | 22,426 |
| Decrease of 1893 below 1892. | - | - | - | - | - | - | 1,711 | 207,376 | - | - | 2,809,266 | - | - | - | - | - | - | - |

SEVENTH ANNUAL REPORT

OF THE

CONTROLLER OF COUNTY ACCOUNTS.

FEBRUARY, 1894.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

Commonwealth of Massachusetts.

OFFICE OF THE SECRETARY,
BOSTON, Feb. 1, 1894.

HON. GEORGE V. L. MEYER, *Speaker House of Representatives.*

SIR:—I have the honor to transmit herewith Public Document No. 29, being the Report of the Controller of County Accounts.

Very respectfully,

WM. M. OLIN,
Secretary.

Commonwealth of Massachusetts.

OFFICE OF CONTROLLER OF COUNTY ACCOUNTS,
No. 9 PARK STREET, BOSTON, Feb. 1, 1894.

To the Honorable Senate and House of Representatives.

In compliance with law I have the honor to submit my seventh annual report. Under the provisions of chapter 144 of the Acts of 1893, I sent to the Secretary of the Commonwealth, on the first day of the present session of the Legislature, my recommendations and suggestions for legislative action.

I inadvertently omitted one topic which I deem of considerable importance, and will add that now. It is that the per diem pay of special justices and clerks *pro tempore* of the inferior courts be more specifically determined. The question, plainly stated, is, How many days make a year in the inferior courts? As the compensation of special justices and clerks *pro tempore* may come out of the pockets of the standing justices and clerks, the views of those officers are not harmonious, and the practice in the several counties is not uniform. When it is remembered that in some courts it makes a difference of a dollar and a half a day to the special justice whether Sundays and legal holidays are to be counted in or out in determining the divisor in the problem, and when the great number of the courts is kept in view, it will be apparent that the question is not a trifling one. It is claimed on the one hand that the courts are open every day in the year to hear complaints and issue warrants. On the other hand it is said that chapter 396

of the Acts of 1893 provides that clerks may issue all warrants, and that therefore there is no need of the courts being open every day, and that as a matter of practice they are not open, and that the clerks not only issue warrants, but also hear complaints on Sundays and holidays. The matter should be settled once for all.

I repeat the recommendations already referred to, that the report may be complete in itself.

2. That there be a joint legislative committee on County Affairs. I can do no better than to quote from the last annual message of Governor Long: "It is a suggestion worth considering whether the House committee on County Estimates might not be made a joint committee to consider county affairs. As our counties increase in population, and their receipts and expenditures become more extensive, it would be well if they could have something of the same relation to their officials and finances which towns now have directly with theirs through town meetings, or rather the people of the Commonwealth, or of cities with theirs through representation." The Legislature has a joint committee on Cities, and another on Towns. Why should not counties receive the attention of a like committee? The House committee on County Estimates seems to deal with nothing but the question of taxation. Why should not all county matters go to one committee? There is no constitutional objection, as any question of revenue could be reported in the House. Under the existing practice bills from the committee on County Estimates go into the Senate, where no senator has the special information that he would have had he been on the committee which heard and decided in the first instance the matter in hand. The receipts of counties, not including Suffolk, for the year 1893 were about \$3,500,000.

3. That the law relating to payment of fees from naturalization to law library associations be revised. Since the present law was fixed many statutes have been enacted which affect this question. Some counties have no law library associations, and the question of appropriation for the libraries in such counties is in some doubt. The

amounts paid by the counties, not including Suffolk, were in —

| | |
|-----------------|-------------|
| 1891, | \$15,320 92 |
| 1892, | 19,607 19 |
| 1893, | 23,695 15 |

4. That county commissioners be forbidden to pass blanket orders to borrow money. The facilities for holding special meetings in cases of emergency are so great that there is little or no force in the argument of convenience. A treasurer should be authorized to borrow what he needs at a given time, and not have authority in January to borrow all he may need in anticipation of the taxes.

5. That section 25 of chapter 220 of the Public Statutes be repealed. This fee to the sheriff for custody of prisoners is not allowed in all the counties. The sheriff's salary should be his only compensation.

6. That in all criminal cases in the inferior courts and before trial justices, where appeals are taken, defendants should be required to give a bond, in place of the recognizance, as in civil cases and in bastardy. I believe such a law would promote justice, as well as put money in county and town treasuries. To sign a bond is a different matter from standing up in court and bowing the head when asked to be responsible for the appearance of a defendant in a higher court. Men are reluctant to sign a bond; there is no escape from the signature. Recognition of sureties would be easy. The fact that only few forfeited recognizances bring money into the courts is well known to the legal profession and proves that there is something wrong somewhere. It is equally well known that appeals are taken not because justice has not been done, but because it has been done; not because defendants choose to be tried by jury, but because they do not wish to be tried at all. An appeal gives time and delay, with opportunity for witnesses to die, move away or be tampered with, to interview the district attorney, and in every other possible way defeat and delay justice. There is little or no force in the argument that it would take too much time to make bonds. They would be all printed and ready to insert names and

dates of parties and sureties, and that is all. The sureties now have to be examined just as they would be if bonds were given. The number of appeals would be so much reduced that the work as a whole, in my judgment, would be diminished and not increased by this proposed change. It is respectfully submitted that this proposition will meet with the approval of the bench and bar of this Commonwealth. The right of appeal and trial by jury must be preserved. The 80,000 defendants who go through our inferior courts annually have their rights, to wit, to a speedy and impartial trial. At the same time the 2,150,000 good citizens who do not appear in any court have their rights. Among these is the right to have criminal business disposed of in the most expeditious manner consistent with justice and decorum. In civil matters there are various contrivances, not always efficacious, for discouraging frivolous appeals. Why not also discourage frivolous appeals on the criminal side? In 1893 there were 5,370 criminal cases before the superior court, an increase of 164 over 1892, and all these were appeals, as the grand jury cases fell off 90.

7. I incline to recommend that in cases of damages to domestic animals by dogs the clerks of the county commissioners be required to make a transcript of the record, showing the amounts due to persons in each town and city, and forward the same with the check of the county treasurer to each town or city treasurer, who shall disburse the same to the parties entitled thereto. By this method the damages assessed would get into the town and city reports, would be publicly discussed, and in my opinion the price of hens and sheep would go down materially. Obtaining damage from the counties for depredations by dogs has become quite an industry. Town and city treasurers can more easily identify persons to whom damages are awarded, a less number of checks will be outstanding, and all accounts will be more simple.

8. That the salaries attached to this office be increased in proportion to the increased labor and responsibility put upon the office since its establishment seven years ago.

The receipts of county treasurers are half a million dollars greater than in 1887, and this involves the examination of the vouchers, on both sides of the account, of a million dollars.

Some thirty-five acts relating to county and court affairs have been put upon the statute books. Those that have specially increased the labor or responsibility of the office are : —

Chapter 380 of 1890, which abolished the old county examining boards, and required the controller to certify to the accuracy of the accounts of county treasurers. This duty is not put upon any other auditing or examining board or commission in the Commonwealth.

Chapter 257 of 1893 requires the controller or his deputies to examine, at least once every year, all the official bonds of county officers. The number of these bonds is not less than 220, and their thorough examination requires a great amount of time and travel, as well as responsibility.

Chapter 273 of 1893 requires the controller to audit and certify the monthly travelling expenses of county commissioners. The office is essentially inquisitorial, dealing with individuals, and not with things or corporations. Public officers are not only called upon to show balances, but also perquisites. The office is all the time in contact with entrenched power. The work, too, is mainly outside the office, and the commissioner who travels has a harder task than the one who does his work in the home office and sleeps in his own bed every night.

The pay of my two deputies is manifestly too small. They are not clerks, but do the same kind of work that I do. Comparison of their duties with those of chief clerks in the various departments and offices of the State will show to a reasonable mind that salaries need at least a readjustment.

THE TABLES. — THE COUNTY TREASURERS.

There is little in the tables that calls for special remark. The total receipts of the county treasurers are \$42,000 less than last year. Bristol looms up in the list of large receipts

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and expenditures. This is mainly from expense of new county buildings and from one or two capital trials. From the courts come \$3,000 more than in 1892, showing that hard times do not necessarily reduce litigation.

Sheriffs pay in about \$5,000 less than last year.

The fees from naturalization increased more than \$3,000. The significant fact here is that 1893 was what is called an "off year."

Masters of houses of correction fell off \$11,000. Their receipts from fines now go mainly to towns and cities.

The fees from clerks of courts come short of last year by \$400. The slight reduction appears to be in Bristol, Hampden and Worcester.

The counties have paid for bridges, highways and for land damages \$114,000 less than in 1892, and have received from the municipalities, in the same behalf, \$9,000 more.

CLERKS OF COURTS.

These officers have sold more writs and made more entries than in 1892. The notable increase is in the superior court for Suffolk and Middlesex counties. There is a slight falling off in the island counties, in Hampshire and Worcester, and in the supreme judicial court of Suffolk. This latter is due to the fact, mainly, that equity and probate appeals are about all the entries that now go into that court for trial. The receipts for term fees and executions have well-nigh disappeared. The receipts for certificates and affidavits, orders and copies, do not much differ from last year. The receipts for naturalization are only \$650, showing that the inferior courts or United States tribunals do the most of that business.

DISTRICT COURTS.

These courts have received in fines about \$13,000 more than in 1892. They have also sold more writs and made about 400 more civil entries, the notable increase being in the first and third district courts of Eastern Middlesex and in the central at Worcester. These courts have received more than \$10,000 for naturalization.

The restoration of the fine for drunkenness brought 9,069 more trials for that offence than in 1892, and resulted, as above stated, in an increase of fines paid. I believe the discretion of the judges is safe on this question of a fine for drunkenness. These courts paid to cities and towns about \$64,000 last year. I do not hear the policy of paying fines to cities and towns, and making them sustain their own police force, longer questioned.

POLICE COURTS.

These courts have received in fines \$8,200 more than in 1892. They have also kept pace with the other courts in increase of writs and entries. The courts at Lowell and Springfield show the greatest increase in civil business. Police courts have also done a large business in naturalization, the receipts being \$8,100. The increased payment to towns and cities over last year is \$7,000.

MUNICIPAL COURTS.

The receipts from fines in these courts are \$20,000 more than last year, and that is also the excess over last year in amount paid over to the collector of Boston. The receipts from the central court of Boston increased \$16,000, and that in Dorchester doubled. It is a remarkable fact that all these courts in Boston took but \$6 for naturalization. The fees in civil cases went up from about \$14,000 to \$16,000, and of this latter sum \$15,000 came from the central court of Boston, the increase in that court being \$1,139.

TRIAL JUSTICES.

These officers received in fines \$1,500 more and paid over to towns about \$900 more than in 1892. It may be said with truth that the records of all the courts show an increase of business over previous years.

SHERIFFS.

The sheriffs received in fines \$6,100 less than last year; the amount from forfeitures was about the same. It is

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noticeable that the only counties which return funds received from forfeited recognizances are Bristol, Hampden, Norfolk and Worcester.

KEEPERS OF JAILS AND MASTERS OF HOUSES OF CORRECTION.

These officers have received from fines about \$4,000 more than last year. From labor of prisoners about \$88,000 has gone into the treasuries, only \$12,000 less than last year. It must be admitted that here is a favorable showing, when the hard times and the general condition of prison labor are kept in view.

EDWARD P. LORING,

Controller of County Accounts.

APPENDIX.

TABLE No. 1.—Returns of County Treasurers for the Year ending Dec. 31, 1893.
RECEIPTS.

| TREASURER. | County. | Tax Collections. | Courts. | Naturalization. | Sheriffs. | Jailers. | Masters of Houses of Correction. | Dog Licensees. |
|-----------------------|---------------|------------------|-------------|-----------------|-------------|------------|----------------------------------|----------------|
| Clarendon A. Freeman, | Barstable, | \$18,000 00 | \$177 00 | - | \$9 00 | - | \$564 82 | \$2,985 00 |
| George H. Tucker, | Berkshire, | 75,000 00 | 1,219 36 | \$949 00 | 608 86 | - | 1,806 20 | 8,702 40 |
| George F. Pratt, | Bristol, | 200,000 00 | 995 45 | 3,016 00 | 2,665 16 | \$474 86 | 24,334 50 | 17,078 20 |
| Jonathan H. Munroe, | Dukes County, | 7,500 00 | 40 00 | 4 00 | 60 00 | - | - | 415 60 |
| E. Kendall Jenkins, | Essex, | 246,500 00 | 3,893 34 | 2,547 00 | 3,862 60 | 275 00 | 16,939 88 | 21,719 50 |
| Eugene A. Newcome, | Franklin, | 31,943 01 | 23 00 | - | 163 12 | - | 1,393 26 | 4,214 40 |
| William C. Marsh, | Hampden, | 130,000 00 | 3,326 47 | 819 00 | 5,331 43 | 90 00 | 4,206 38 | 10,368 70 |
| Lewis Warner, | Hampshire, | 48,000 00 | 144 30 | 289 50 | 3,007 02 | - | 2,005 29 | 5,543 73 |
| Joseph O. Hayden, | Middlesex, | 350,000 00 | 1,785 10 | 3,553 00 | 6,331 93 | 2,382 15 | 41,801 96 | 39,609 34 |
| Henry Paddock, | Nantucket, | 2,650 00 | 278 10 | - | 11 00 | - | - | 316 40 |
| Charles H. Smith, | Norfolk, | 140,000 00 | 2,048 62 | 692 00 | 300 00 | - | 3,326 44 | 15,868 06 |
| Albert Davis, | Plymouth, | 90,000 00 | 612 00 | 547 88 | 767 06 | 278 00 | 2,282 09 | 13,795 00 |
| Edward A. Brown, | Worcester, | 150,000 00 | 1,181 05 | 2,413 00 | 5,566 46 | 3,158 54 | 9,838 10 | 28,202 40 |
| | | \$1,496,593 01 | \$15,723 79 | \$14,780 38 | \$28,703 13 | \$6,608 55 | \$105,300 42 | \$108,318 72 |

TABLE No. 1. — *Returns of County Treasurers for the Year ending Dec. 31, 1893* — Continued.

RECEIPTS.

| TREASURER. | County. | Interest. | Cities and Towns on Account of Highways and Bridges. | Loans. | Clerks of Court, Fees. | Transient Schools. | Miscellaneous. | Balance on Hand Jan. 1, 1893. | Total Receipts. |
|-----------------------|---------------|------------|---|--------------|---------------------------|-----------------------|----------------|-------------------------------------|--------------------|
| Clarendon A. Freeman, | Barnstable, | - | \$6,457 16 | \$13,000 00 | \$266 75 | - | \$70 45 | \$2,617 57 | \$44,137 75 |
| George H. Tucker, | Berkshire, | \$71 29 | - | 45,500 00 | 1,149 47 | - | 202 47 | 82,335 36 | 167,546 91 |
| George F. Pratt, | Bristol, | 1,360 00 | - | 137,000 00 | 2,049 08 | \$3,502 34 | 469 75 | 122,209 36 | 515,155 64 |
| Jonathan H. Munroe, | Dukes County, | - | 200 00 | - | 62 45 | - | 1 00 | 5,371 08 | 12,654 13 |
| E. Kendall Jenkins, | Essex, | 2,209 00 | 2,777 65 | 44,000 00 | 3,979 80 | 6,147 66 | 1,969 38 | 158,491 63 | 515,312 63 |
| Eugene A. Newcome, | Franklin, | - | 540 00 | 6,000 00 | 746 76 | - | 23 00 | 10,341 83 | 55,393 38 |
| William C. Marsh, | Hampden, | 180 97 | - | 95,800 00 | 2,684 50 | 1,518 89 | 295 47 | 2,443 90 | 257,065 71 |
| Lewis Warner, | Hampshire, | 128 21 | - | 30,000 00 | 774 21 | - | 50 00 | 607 32 | 90,549 58 |
| Joseph O. Hayden, | Middlesex, | 1,201 70 | - | 289,825 00 | 6,412 05 | - | 523 10 | 48,219 59 | 771,564 92 |
| Henry Paddock, | Nantucket, | - | 40 | - | 81 80 | - | 1 00 | 578 66 | 3,917 36 |
| Charles H. Smith, | Norfolk, | 365 36 | - | 84,000 00 | 1,351 72 | 1,663 06 | 347 00 | 71,262 52 | 331,127 77 |
| Albert Davis, | Plymouth, | 113 98 | 19,688 39 | 70,000 00 | 972 60 | 631 89 | 514 08 | 5,416 32 | 205,619 29 |
| Edward A. Brown, | Worcester, | 924 03 | - | 20,000 00 | 2,937 57 | 2,797 59 | 1,160 91 | 73,550 03 | 301,729 67 |
| | | \$6,568 32 | \$29,763 60 | \$816,125 00 | \$23,499 61 | \$16,261 43 | \$5,632 61 | \$633,505 17 | \$3,262,823 74 |

TABLE No. 1. — *Returns of County Treasurers for the Year ending Dec. 31, 1893* — Continued.

EXPENDITURES.

| TREASURER. | County. | Interest. | Support of Prisoners. | Salaries. | Dog License Money refunded and paid for Damages. | Highways and Bridges and Land Damages. | Build- ing, Repairing and Furnishing County Buildings. | Paid on Principal of County Debt. |
|-----------------------|-----------------|-------------|-----------------------|--------------|--|--|--|-----------------------------------|
| Clarendon A. Freeman, | Barnstable, . . | \$506 06 | \$2,348 96 | \$6,761 16 | \$3,001 45 | \$3,981 64 | \$11,324 57 | - |
| George H. Tucker, | Berkshire, . . | 8,086 42 | 9,072 86 | 24,945 94 | 7,893 82 | 5,600 80 | 12,387 63 | \$10,000 00 |
| George F. Pratt, | Bristol, . . | 20,988 38 | 51,161 72 | 49,328 10 | 16,221 30 | 20,554 86 | 104,712 91 | 40,000 00 |
| Jonathan H. Munroe, | Dukes County, . | 610 96 | 101 22 | 1,906 26 | 416 80 | 134 51 | 196 62 | 2,525 00 |
| E. Kendall Jenkins, | Essex, . . | 12,335 64 | 62,941 06 | 43,068 65 | 22,575 76 | 16,806 17 | 4,278 30 | \$0,000 00 |
| Eugene A. Newcome, | Franklin, . . | 1,666 04 | 1,669 63 | 7,630 32 | 4,443 34 | 2,298 78 | 1,921 01 | 2,500 00 |
| William C. Marab, | Hamden, . . | 17,153 34 | 14,444 30 | 33,756 20 | 10,711 46 | 16,389 41 | 4,681 26 | 26,000 00 |
| Lewis Warner, | Hampshire, . . | 4,886 24 | 7,098 02 | 13,351 62 | 4,814 83 | 1,645 94 | 183 44 | 8,000 00 |
| Joseph O. Hayden, | Middlesex, . . | 10,716 98 | 114,547 06 | 66,960 66 | 46,265 11 | 17,222 08 | 26,566 82 | 30,000 00 |
| Henry Paddock, | Nantucket, . . | - | 182 74 | 1,362 98 | 328 00 | 409 01 | 168 76 | - |
| Charles H. Smith, | Norfolk, . . | 2,023 86 | 14,154 67 | 20,351 00 | 15,894 27 | 3,476 40 | 53,776 45 | - |
| Albert Davis, | Plymouth, . . | 8,409 14 | 6,729 26 | 22,770 79 | 13,907 85 | 13,053 77 | 1,848 00 | 12,000 00 |
| Edward A. Brown, | Worcester, . . | 273 28 | 35,195 94 | 44,624 56 | 25,203 38 | 2,500 00 | 20,190 46 | - |
| | | \$87,653 25 | \$320,877 45 | \$338,596 27 | \$167,670 17 | \$104,222 82 | \$247,733 33 | \$181,025 00 |

TABLE No. 1. — *Returns of County Treasurers for the Year ending Dec. 31, 1893* — Continued.

EXPENDITURES.

| TREASURER. | County. | Paid on Temporary Loans. | Expenses Criminal Prosecutions. | Expenses Terms of Court. | Medical Examiners and Inquests. | Auditors and Masters. | Sheriff For Custody of Prisoners. | Expenses of District and Police Courts. |
|-------------------------|-------------------|--------------------------------|---------------------------------------|--------------------------------|--|-----------------------------|--|--|
| Clarendon A. Freeman, | Barnstable, . . | \$4,000 00 | \$922 40 | \$673 59 | \$142 80 | - | \$50 00 | \$1,702 51 |
| Geo. H. Tucker, . . | Berkshire, . . | 39,500 00 | 6,172 21 | 6,480 06 | 716 35 | \$100 00 | 100 00 | 1,812 75 |
| Geo. F. Pratt, . . | Bristol, . . | 47,000 00 | 21,801 26 | 20,529 38 | 2,945 52 | 1,873 45 | - | 5,700 97 |
| Jonathan H. Munroe, . . | Dukes County, . . | - | 452 40 | 917 39 | 31 20 | - | 25 00 | - |
| E. Kendall Jenkins, . . | Essex, . . | 44,000 00 | 12,144 48 | 24,185 11 | 1,695 43 | 1,883 75 | - | 12,616 18 |
| Eugene A. Newcome, . . | Franklin, . . | 6,000 00 | 4,456 63 | 4,627 46 | 316 20 | 9 00 | 40 00 | - |
| William C. Marsh, . . | Hampden, . . | 87,000 00 | 7,018 43 | 14,705 76 | 2,233 50 | 797 00 | - | 2,033 99 |
| Lewis Warner, . . | Hampshire, . . | 32,000 00 | 2,789 89 | 6,323 56 | 431 15 | 45 00 | - | - |
| Joseph O. Hayden, . . | Middlesex, . . | 285,200 00 | 37,763 80 | 34,239 97 | 3,396 50 | 5,331 98 | 150 00 | 27,273 36 |
| Henry Paddock, . . | Nantucket, . . | - | 300 70 | 623 30 | 13 00 | - | - | - |
| Charles H. Smith, . . | Norfolk, . . | 104,000 00 | 22,618 85 | 10,596 47 | 578 90 | 806 25 | - | 4,146 01 |
| Albert Davis, . . | Plymouth, . . | 90,000 00 | 4,223 51 | 14,063 74 | 562 55 | 835 00 | - | 1,268 19 |
| Edward A. Brown, . . | Worcester, . . | 20,000 00 | 16,677 12 | 25,031 57 | 2,649 40 | 2,843 80 | 20 00 | 11,462 55 |
| | | \$708,700 00 | \$137,431 17 | \$165,951 35 | \$15,712 50 | \$14,594 23 | \$385 00 | \$68,075 51 |

TABLE No. 1. — *Returns of County Treasurers for the Year ending Dec. 31, 1893* — Continued.

EXPENDITURES.

| TREASURER. | County. | Copying, Recording and Indexing. | Printing and Stationery. | Law Libraries. | Fuel, Light, etc., County Buildings. | T r u s t School. | Commitment of Inane Persons. | Travelling Expenses of County Commissioners. |
|-----------------------|-----------------|---|--------------------------------|-------------------|---|----------------------|---------------------------------------|---|
| Clarendon A. Freeman, | Barnstable, . . | \$287 01 | \$614 31 | \$219 50 | \$874 18 | - | \$539 81 | \$304 24 |
| George H. Tucker, | Berkshire, . . | 159 35 | 1,062 86 | 1,970 00 | 708 10 | \$1,457 99 | 940 80 | 24 04 |
| George F. Pratt, | Bristol, . . | 6,462 57 | 2,607 80 | 408 75 | 6,290 80 | 5,858 77 | 2,077 67 | 239 10 |
| Jonathan H. Munroe, | Dukes County, . | - | 231 13 | 31 50 | 95 27 | - | 114 39 | - |
| E. Kendall Jenkins, | Essex, . . | 4,306 00 | 2,090 28 | 4,547 00 | 6,335 37 | 11,439 35 | 3,371 81 | 393 15 |
| Eugene A. Newcome, | Franklin, . . | 2,771 18 | 700 68 | 800 00 | 1,615 40 | - | 452 04 | 188 25 |
| William C. Marsh, | Hampden, . . | 1,150 00 | 1,823 65 | 2,868 95 | 5,918 23 | 5,590 18 | 1,247 30 | 78 81 |
| Lewis Warner, | Hampshire, . . | 1,136 00 | 1,868 80 | 1,669 80 | 1,590 97 | 200 00 | 381 95 | - |
| Joseph O. Hayden, | Middlesex, . . | 18,890 31 | 8,051 41 | 5,583 00 | 6,367 25 | 25,719 87 | - | 385 39 |
| Henry Paddock, | Nantucket, . . | 51 00 | 174 83 | - | 52 08 | - | 89 10 | - |
| Charles H. Smith, | Norfolk, . . | 600 00 | 2,539 43 | - | 4,692 09 | 4,351 96 | 770 37 | 181 40 |
| Albert Davis, | Plymouth, . . | 882 68 | 1,657 35 | 351 50 | 4,092 13 | 2,444 41 | 1,157 76 | 296 43 |
| Edward A. Brown, | Worcester, . . | 3,872 93 | 3,745 91 | 5,275 15 | 5,665 72 | 10,412 56 | 3,012 51 | - |
| | | \$40,518 03 | \$26,633 30 | \$23,695 15 | \$44,127 58 | \$67,475 09 | \$12,955 31 | \$5,090 90 |

TABLE No. 1. — *Returns of County Treasurers for the Year ending Dec. 31, 1893* — Concluded.

EXPENDITURES.

| TREASURER. | County. | Miscellaneous. | BALANCE IN TREASURY, DEC. 31, 1893. | | | Total Expenditures. | Amount of County Debt, Dec. 31, 1893. | Salary of Treasurer. |
|-----------------------|---------------|----------------|-------------------------------------|--------------------------------|------------------------------------|---------------------|---------------------------------------|----------------------|
| | | | Cash. | Deposits in Banks on Interest. | Deposits in Banks not on Interest. | | | |
| Clarendon A. Freeman, | Barnstable, | \$72 00 | - | - | \$7,042 77 | \$44,137 75 | - | \$500 00 |
| Geo. H. Tucker, | Berkshire, | 13 00 | \$906 44 | \$26,296 47 | - | 167,545 91 | \$176,000 00 | 1,500 00 |
| Geo. F. Pratt, | Bristol, | 213 75 | - | 88,965 63 | 15 00 | 515,158 64 | 532,500 00 | 1,800 00 |
| Jonathan H. Munroe, | Dukes County, | 158 75 | - | - | 5,706 96 | 13,654 13 | 14,156 00 | 800 00 |
| E. Kendall Jenkins, | Essex, | 2,272 38 | 613 41 | 171,478 36 | - | 515,312 63 | 260,000 00 | 2,200 00 |
| Eugene A. Newcome, | Franklin, | 63 60 | 49 | - | 10,993 43 | 55,393 38 | 37,500 00 | 600 00 |
| William C. Marsh, | Hampden, | 1,123 86 | 276 79 | 433 31 | - | 257,085 71 | 498,300 01 | 1,500 00 |
| Lewis Warner, | Hampshire, | 152 50 | 1,092 76 | 292 11 | - | 90,549 58 | 98,000 00 | 800 00 |
| Joseph O. Hayden, | Middlesex, | 429 08 | - | 52,583 26 | - | 771,594 92 | 109,625 00 | 2,500 00 |
| Henry Paddock, | Nantucket, | - | 101 86 | - | - | 3,917 86 | - | 160 00 |
| Charles H. Smith, | Norfolk, | 2,754 95 | 326 16 | 44,107 69 | 3,000 00 | \$21,127 77 | - | 1,200 00 |
| Albert Davis, | Plymouth, | 1,312 87 | 1,554 99 | 2,267 77 | - | 205,619 29 | 164,229 35 | 1,900 00 |
| Edward A. Brown, | Worcester, | - | 946 57 | 58,126 26 | - | 301,729 67 | - | 2,200 00 |
| | | \$8,566 74 | \$6,819 07 | \$44,550 86 | \$26,758 16 | \$3,263,823 74 | - | - |

TABLE No. 2. — *Returns of Clerks of Courts for the Year ending Dec. 31, 1893.*

RECEIPTS.

| Clerk of Court. | County. | Fees accrued prior to July 1, 1893. | Sales of Writs. | Civil Entries. | Term Fees. | Executions. | Certificates and Affidavits. | Orders and Copies. | Naturalization. | Printing Law Cases. | Payments into Court under Statute and Rules of Court. | From Other Sources. | Balance on hand Jan. 1, 1893. | Total Receipts. |
|--------------------------------------|-------------|-------------------------------------|-----------------|----------------|------------|-------------|------------------------------|--------------------|-----------------|---------------------|---|---------------------|-------------------------------|-----------------|
| Smith K. Hopkins, | Barnstable, | - | \$1 50 | \$216 00 | - | \$2 00 | \$14 75 | \$7 50 | \$14 00 | \$70 00 | - | \$5 00 | \$577 23 | \$330 75 |
| Henry W. Taff, | Berkshire, | - | 15 75 | 621 00 | - | - | 123 10 | 198 43 | - | 37 13 | \$245 20 | \$2 13 | \$277 23 | 2,071 98 |
| Simson Borden, | Bristol, | - | 22 39 | 1,754 00 | - | - | 3 00 | - | - | 173 50 | 400 00 | 223 38 | 831 06 | 2,924 14 |
| Samuel Keniston, | Dukes Co., | - | 45 | 60 00 | - | - | - | 2 00 | 4 00 | - | - | - | - | 66 40 |
| Dean Peabody, | Essex, | - | 65 45 | 3,285 00 | - | 3 65 | 537 50 | 328 30 | - | 329 00 | 1,532 38 | 20 75 | 8,478 91 | 14,278 94 |
| Edward E. Lyman, | Franklin, | - | 5 40 | 420 00 | - | 50 | 168 90 | 41 25 | 138 00 | 19 00 | 2,002 25 | 16 90 | 1,809 84 | 2,710 76 |
| Robert O. Morris, | Hampton, | \$4 50 | 34 10 | 2,121 00 | \$8 00 | 1 25 | 185 25 | 117 95 | 116 00 | 421 50 | 2,530 98 | - | 1,809 84 | 7,630 47 |
| William H. Cappy, | Hamshire, | - | 11 95 | 447 00 | - | 1 00 | 186 00 | 33 00 | 41 00 | 122 75 | 800 00 | 1 55 | 111 35 | 1,655 60 |
| Theodore C. Hurd, | Middlesex, | 10 40 | 54 70 | 4,767 00 | 18 90 | 3 00 | 251 00 | 529 68 | - | 752 60 | 7,066 86 | 9 00 | 1,544 50 | 15,631 61 |
| Jonathan F. Murphy, | Nantucket, | - | 2 35 | 45 00 | - | - | 14 50 | 11 00 | 1 00 | 403 00 | 2,585 02 | 9 00 | 747 55 | 85 85 |
| Erasmus Worthington, | Norfolk, | - | 17 25 | 1,131 00 | - | 25 00 | 79 00 | 221 80 | 14 00 | - | 1,744 13 | - | - | 5,289 87 |
| Edward E. Hobart, | Plymouth, | - | 11 25 | 921 00 | - | - | 9 50 | 38 25 | - | - | - | - | - | 2,724 13 |
| John Noble (Supreme Judicial), | Suffolk, | - | 5 30 | 1,465 00 | - | 50 | 191 25 | 6 00 | - | 2,389 00 | 200 00 | 3,471 13 | 389 40 | 8,097 58 |
| Joseph A. Willard (Superior Civil), | Suffolk, | - | 384 85 | 17,022 00 | 2 40 | 45 75 | 1,062 75 | 546 05 | - | 2,923 68 | 7,725 99 | 707 42 | 8,530 06 | 38,940 94 |
| John F. Manning (Superior Criminal), | Suffolk, | - | - | - | - | - | 121 30 | - | 18 00 | - | 17,000 00 | - | 5,000 00 | 22,139 80 |
| Theodore S. Johnson, | Worcester, | 21 40 | 37 10 | 2,685 00 | 48 40 | - | 120 50 | 59 15 | 804 00 | - | 5,047 00 | 38 52 | 3,141 06 | 11,502 13 |
| | | \$36 30 | \$670 71 | \$37,173 00 | \$77 70 | \$82 65 | \$3,523 36 | \$2,140 33 | \$650 00 | \$7,071 16 | \$49,783 91 | \$4,641 78 | \$30,642 35 | \$136,068 50 |

TABLE No. 2. — *Returns of Clerks of Courts for the Year ending Dec. 31, 1893* — Concluded.

EXPENDITURES.

| Clerk of Court. | County. | Paid County Treasurer. | Retained half excess fees accrued prior to July 1, 1888. | Paid for Printing Cases. | Paid from Amount held under the Statute and by Order of the Court. | Paid other Parties. | Balance on hand Dec. 31, 1893. | Total Expenditures. | Salary. |
|--------------------------------------|---------------|------------------------|--|--------------------------|--|---------------------|--------------------------------|---------------------|------------|
| Smith K. Hopkins, | Barnstable, | \$266 75 | | \$64 00 | \$566 85 | - | - | \$330 75 | \$1,000 00 |
| Henry W. Taft, | Berkshire, | 1,151 47 | - | 87 13 | 231 96 | - | \$326 53 | 2,071 98 | 2,800 00 |
| Simson Borden, | Bristol, | 2,013 68 | - | 173 50 | - | \$6 00 | 500 00 | 2,924 14 | 4,000 00 |
| Samuel Keniston, | Dukes County, | 66 45 | - | - | - | - | - | 66 45 | 600 00 |
| Dean Peabody, | Essex, | 3,936 65 | - | 329 00 | 8,405 67 | - | 1,605 62 | 14,276 94 | 5,200 00 |
| Edward E. Lyman, | Franklin, | 708 01 | - | - | 2,000 50 | - | 2 25 | 2,710 76 | 1,800 00 |
| Robert O. Morris, | Hampden, | 2,684 50 | \$2 25 | 286 30 | 2,684 08 | 7 50 | 1,955 84 | 7,620 47 | 3,500 00 |
| William H. Clapp, | Hampshire, | 1,914 20 | - | - | - | 1 50 | 39 90 | 1,955 60 | 2,300 00 |
| Theodore C. Hurd, | Middlesex, | 6,412 05 | 5 20 | - | 4,228 92 | - | 4,085 44 | 15,631 61 | 6,000 00 |
| Joshua F. Murphy, | Nantucket, | 85 85 | - | - | - | - | - | 85 85 | 600 00 |
| Erastus Worthington, | Norfolk, | 1,461 97 | - | 386 50 | 2,544 50 | 97 83 | 789 07 | 5,280 87 | 2,800 00 |
| Edward E. Hobart, | Plymouth, | 980 00 | - | - | 1,744 13 | - | - | 2,724 13 | 2,800 00 |
| John Noble (Supreme Judicial), | Suffolk, | 4,792 55 | - | 2,396 00 | 400 00 | 346 63 | 169 40 | 8,097 58 | 6,500 00 |
| Joseph A. Willard (Superior Civil), | Suffolk, | 19,723 36 | - | 2,566 78 | 8,012 56 | 163 78 | 8,453 46 | 38,940 94 | 6,500 00 |
| John P. Manning (Superior Criminal), | Suffolk, | 138 30 | - | - | 20,200 00 | - | 1,800 00 | 22,138 30 | 6,000 00 |
| Theodore S. Johnson, | Worcester, | 3,243 57 | 10 70 | - | 6,833 04 | - | 1,414 82 | 11,502 13 | 5,200 00 |
| | | \$49,231 86 | \$18 15 | \$6,242 21 | \$57,842 21 | \$642 24 | \$32,042 33 | \$136,066 50 | - |

TABLE No. 3. — Returns of District Courts for the Year ending Dec. 31, 1893.

RECEIPTS.

| | From De- fendants for Fines. | From De- fendants for Expenses. | From De- fendants for Forfeitures. | Complaints in Bastardy Cases. | Defendants in Bastardy (Bonds). | Bail Depos- ited in Lieu of Surety. | Sale of Writs. | Entries. | Other Civil Fees. | Naturaliza- tion. |
|---|------------------------------------|---------------------------------------|--|-------------------------------------|---------------------------------------|---|----------------|------------|----------------------|----------------------|
| Frederic C. Swift, Justice, Barnstable, . . . | \$1,009 00 | \$13 80 | - | \$3 00 | \$2 00 | - | \$7 80 | \$33 00 | \$11 50 | - |
| James H. Hopkins, Justice, Provincetown, . . | 321 00 | 23 55 | - | 4 50 | 2 00 | - | 2 85 | 23 00 | 21 50 | - |
| Henry S. Lyons, clerk, North Adams, . . . | 2,330 89 | - | - | - | - | \$50 00 | 18 05 | 144 00 | 3 65 | \$115 00 |
| W. B. Smith, clerk, Pittsfield, . . . | 1,677 00 | 453 52 | - | 1 50 | - | 130 00 | 22 10 | 252 00 | 28 75 | 76 00 |
| D. B. Coleman, clerk, Great Barrington, . . | 864 54 | 224 10 | - | 10 00 | - | 565 00 | 13 35 | 75 00 | 16 70 | 32 00 |
| A. B. Leonard, clerk, Fall River, . . . | 9,540 23 | 553 27 | - | 28 00 | - | 3,300 00 | 34 75 | 214 00 | 78 05 | 994 00 |
| T. J. Cobb, clerk, New Bedford, . . . | 6,208 69 | 167 62 | \$240 50 | 4 50 | - | 100 00 | 32 55 | 256 00 | 58 75 | 857 00 |
| Albert Fuller, clerk, Taunton, . . . | 8,143 50 | 38 97 | - | 4 50 | - | - | 28 55 | 166 00 | 54 00 | 178 00 |
| G. W. Cate, Justice, Amesbury, . . . | 1,662 00 | - | - | - | - | - | 8 45 | 51 75 | 4 37 | - |
| William Perry, clerk, Salem, . . . | 3,259 75 | 6 00 | - | 5 00 | - | 100 00 | 48 50 | 301 50 | 47 94 | 181 00 |
| George Robinson, Justice, Palmer, . . . | 611 40 | - | - | 4 50 | - | 287 00 | 11 45 | 80 00 | 8 00 | 29 00 |
| Henry Fuller, clerk, Westfield, . . . | 915 69 | - | - | 1 50 | - | - | 16 80 | 80 00 | 17 25 | 80 00 |
| H. H. Chilson, clerk, Northampton, . . . | 2,312 00 | - | - | - | - | - | 36 98 | 221 00 | 17 25 | 84 00 |
| G. W. Sanderson, clerk, Ayer, . . . | 804 59 | - | - | - | - | 300 00 | 6 02 | 41 00 | 4 75 | - |
| J. S. Keyes, Justice, Concord, . . . | 970 40 | - | - | - | - | - | 6 35 | 37 00 | 2 25 | - |
| J. H. Ladd, clerk, South Frammingham, . . | 1,359 45 | 97 63 | - | - | - | - | 20 20 | 130 00 | 81 00 | 83 00 |
| W. N. Tyler, clerk, Malden, . . . | 5,053 00 | 139 88 | - | - | - | 400 00 | 76 30 | 745 00 | 485 25 | 47 00 |
| E. W. Law, clerk, Cambridge, . . . | 5,933 50 | - | - | - | - | - | 74 55 | 509 00 | 396 75 | 27 00 |
| Dudley Roberts, clerk, Waltham, . . . | 2,873 00 | - | - | 10 50 | - | 208 62 | 31 08 | 228 00 | 19 75 | 23 00 |
| Arthur E. Gages, clerk, Woburn, . . . | 4,205 99 | - | - | 9 00 | - | 300 00 | 14 40 | 175 00 | 88 18 | 96 00 |
| J. P. S. Churchill, clerk, Quincy, . . . | 1,144 85 | 84 52 | - | - | - | 1,300 00 | 5 60 | 78 00 | 147 83 | 361 00 |
| B. R. Doodley, clerk, Stoughton, . . . | 2,634 50 | - | - | - | 1 00 | - | 5 60 | 43 00 | 24 75 | 87 00 |
| O. W. Soule, clerk, Abington, . . . | 1,859 50 | 193 18 | - | 4 50 | 1 00 | 10 00 | 1 95 | 15 00 | 8 60 | 23 00 |
| B. A. Hathaway, clerk, Plymouth, . . . | 808 50 | 3 85 | - | 2 50 | - | 810 00 | 4 40 | 28 00 | 2 25 | 47 00 |
| F. E. Howard, clerk, Wrentham, . . . | 1,991 44 | 64 15 | - | 4 50 | 2 00 | - | 18 75 | 92 00 | 14 50 | 142 00 |
| C. B. Boyce, clerk, Gardner, . . . | 2,240 00 | 9 78 | - | 3 00 | 1 00 | - | 10 23 | 24 00 | 16 00 | 97 00 |
| Clark Jilisen, Justice, Southbridge, . . . | 1,056 24 | 17 80 | 30 00 | - | - | - | 6 00 | 51 00 | 9 85 | - |
| Arthur A. Putnam, Justice, Uxbridge, . . . | 1,732 62 | - | - | 1 50 | - | 100 00 | 7 90 | 43 00 | 9 00 | - |
| E. C. Bates, Justice, Westborough, . . . | 611 31 | - | - | - | - | - | 3 55 | 36 00 | 8 00 | - |
| John A. Thayer, clerk, Worcester, . . . | 7,707 37 | - | - | - | - | 4,540 00 | 168 85 | 1,061 00 | 295 75 | 788 00 |
| | \$81,081 29 | \$2,091 60 | \$270 50 | \$107 50 | \$9 00 | \$12,505 62 | \$763 68 | \$6,520 25 | \$1,975 98 | \$4,885 00 |

TABLE No. 3. — Returns of District Courts for the Year ending Dec. 31, 1893 — Continued.

RECEIPTS.

| | Res not pay- able to Public Authority. | Money paid into Court. | Salary from County. | From County for Criminal Cases, Wit- ness Fees. | From County Final Costs. By-Laws. Other Town Costs in | Other Moneys. | Balance on hand Jan. 1, 1893. | Total Receipts. |
|--|--|---------------------------|------------------------|--|---|------------------|-------------------------------------|--------------------|
| Frederic C. Swift, justice, Barnstable. | - | - | \$1,000 00 | \$300 00 | - | - | - | \$2,380 10 |
| James H. Hopkins, justice, Provincetown. | \$143 00 | - | 758 76 | 286 45 | - | - | \$42 15 | 1,454 76 |
| W. B. Lyons, clerk, North Adams. | 153 25 | - | 800 00 | 470 00 | - | - | \$42 15 | 4,116 74 |
| D. J. Smith, clerk, Pittsfield. | 62 05 | - | 900 00 | 349 30 | - | - | 210 05 | 3,943 42 |
| W. J. Coleman, clerk, Great Barrington. | 124 75 | \$255 04 | 500 00 | 577 60 | \$3 35 | - | 118 30 | 3,407 78 |
| A. B. Leonard, clerk, Fall River. | 187 50 | - | 1,800 00 | 4,041 22 | - | - | 421 30 | 20,846 62 |
| T. J. Cobb, clerk, New Bedford. | 8 00 | 42 04 | 1,100 00 | 792 40 | - | - | 1,021 75 | 10,476 61 |
| Albert Fuller, clerk, Taunton. | 46 00 | 33 83 | 1,200 00 | 1,000 00 | - | - | 48 64 | 6,780 71 |
| G. W. Cate, justice, Amesbury. | 129 00 | - | 1,200 00 | 101 24 | - | - | - | 3,156 23 |
| William Perry, clerk, Salem. | 19 00 | - | 1,200 00 | 183 90 | - | - | 40 71 | 2,632 60 |
| George Robinson, justice, Palmer. | 61 25 | 25 00 | 500 00 | 400 00 | 1 59 | \$15 70 | 611 95 | 2,195 23 |
| Henry Fuller, clerk, Westfield. | 106 00 | 13 20 | 1,100 00 | 428 40 | - | - | 90 10 | 2,568 55 |
| H. H. Chilson, clerk, Northampton. | 8 25 | - | 800 00 | 800 00 | - | - | 1 88 | 2,221 06 |
| G. W. Sanderson, clerk, Ayer. | 3 00 | - | 800 00 | 400 00 | - | - | 144 18 | 2,767 56 |
| J. H. Ladd, clerk, South Framingham. | 41 90 | 78 10 | 800 00 | - | 43 04 | 5 65 | 90 19 | 10,272 41 |
| J. S. Keyes, justice, Concord. | 99 00 | - | 2,000 00 | - | - | - | 40 15 | 7,922 96 |
| W. N. Tyler, clerk, Malden. | 122 00 | 13 25 | 1,400 00 | 2 40 | 50 00 | - | 547 98 | 4,870 08 |
| E. W. Law, clerk, Cambridge. | 167 50 | - | 900 00 | 1,000 00 | - | - | 253 64 | 5,762 16 |
| Dudley Roberts, clerk, Waltham. | 192 25 | 106 00 | 766 69 | 1,000 00 | - | - | 186 84 | 7,366 12 |
| Arthur E. Gage, clerk, Woburn. | 36 25 | 50 00 | 850 00 | 1,100 00 | - | - | 3,708 87 | 3,859 26 |
| J. P. S. Churchill, clerk, Quincy. | 30 00 | - | 500 00 | 328 07 | - | - | 44 10 | 3,708 87 |
| B. R. Dood, clerk, Stoughton. | 16 00 | - | 550 00 | 63 80 | - | 6 78 | - | 3,592 18 |
| O. W. Soule, clerk, Abington. | 101 25 | - | 600 00 | 175 80 | - | - | - | 2,035 70 |
| B. A. Hathaway, clerk, Plymouth. | 92 50 | - | 600 00 | 400 00 | - | - | - | 3,526 09 |
| F. E. Howard, clerk, Wareham. | 37 75 | - | 800 00 | 200 00 | - | - | 16 70 | 4,141 44 |
| C. B. Boyce, clerk, Clinton. | 3 00 | - | 1,800 00 | 200 00 | 6 00 | - | 21 90 | 2,943 89 |
| C. A. Dewey, justice, Milford. | 22 25 | - | 1,400 00 | 275 00 | - | - | 5 75 | 3,516 17 |
| Clark Jilson, justice, Southbridge. | - | - | 1,400 00 | 135 00 | - | - | - | 1,819 51 |
| Arthur A. Putnam, justice, Uxbridge. | - | - | 2,250 00 | 200 00 | - | - | - | 17,020 87 |
| E. C. Bates, justice, Westborough. | - | - | - | - | - | - | - | - |
| John A. Thayer, clerk, Worcester. | \$1,052 70 | \$616 46 | \$32,925 45 | \$15,040 18 | \$103 98 | \$28 13 | \$3,961 44 | \$163,318 66 |

TABLE No. 3. — Returns of District Courts for the Year ending Dec. 31, 1893 — Continued.

EXPENDITURES.

| | County Treasurer. | City or Town Treasurers. | Complain- ants or Informants. | Other Persons. | Officers. | Witnesses. |
|--|----------------------|-----------------------------|-------------------------------------|-------------------|-------------|-------------|
| Frederic C. Swift, justice, Barnstable, | \$86 61 | \$650 71 | \$46 50 | - | \$321 43 | \$274 80 |
| James H. Hopkins, justice, Provincetown, | 90 39 | 270 80 | 31 16 | - | 64 53 | 266 26 |
| Henry S. Lyons, clerk, North Adams, | 283 10 | 1,154 93 | 45 00 | \$50 00 | 1,144 80 | 487 45 |
| W. B. Smith, clerk, Pittsfield, | 510 35 | 1,632 00 | 45 00 | - | 282 42 | 520 40 |
| D. J. Coleman, clerk, Great Barrington, | 149 40 | 864 54 | 5 00 | 991 54 | 234 15 | 562 00 |
| A. B. Leonard, clerk, Fall River, | 1,460 50 | 10,000 53 | 5 00 | 2,800 00 | 83 42 | 3,953 00 |
| T. J. Cobb, clerk, New Bedford, | 987 10 | 4,691 59 | 25 00 | 359 10 | 174 34 | 1,060 30 |
| Albert Fuller, clerk, Taunton, | 618 80 | 3,962 28 | 25 00 | 50 24 | 174 34 | 1,013 30 |
| G. W. Cate, justice, Amesbury, | 64 57 | 1,580 41 | 10 00 | 61 22 | 39 10 | 117 60 |
| William Perry, clerk, Salem, | 98 45 | 2,991 11 | 10 00 | 100 00 | 538 64 | 660 40 |
| George Robinson, justice, Palmer, | 209 00 | 496 54 | - | 290 00 | 121 87 | 268 10 |
| Henry Fuller, clerk, Westfield, | 177 80 | 878 94 | - | 22 00 | 18 84 | 385 40 |
| H. H. Chilson, clerk, Northampton, | 393 80 | 1,979 80 | 9 70 | 13 20 | 472 71 | 929 60 |
| G. W. Sanderson, clerk, Ayer, | 34 00 | 310 49 | 21 30 | 300 00 | 439 23 | 330 00 |
| J. S. Keyes, justice, Concord, | 83 00 | 466 52 | 41 25 | - | 607 43 | 489 22 |
| J. H. Ladd, clerk, South Framingham, | 533 10 | 799 90 | - | - | 306 79 | 410 00 |
| W. N. Tyler, clerk, Malden, | 392 40 | 5,573 21 | - | 492 34 | 142 13 | 1,060 70 |
| E. W. Law, clerk, Cambridge, | 106 00 | 5,076 35 | 48 50 | 60 65 | 345 80 | 608 70 |
| Dudley Roberts, clerk, Waltham, | 641 79 | 2,146 32 | - | 203 62 | - | 768 10 |
| Arthur E. Gage, clerk, Woburn, | 590 63 | 2,472 00 | - | - | 2,723 44 | 1,291 90 |
| J. P. S. Churchill, clerk, Quincy, | 223 05 | 1,471 55 | 10 00 | 391 33 | - | 1,379 20 |
| B. R. Doody, clerk, Stoughton, | 78 50 | 1,592 31 | 35 00 | 1,300 00 | - | 522 49 |
| O. W. Soule, clerk, Abington, | 48 40 | 1,662 42 | 51 08 | 22 00 | 834 57 | 167 15 |
| B. A. Hathaway, clerk, Plymouth, | 53 90 | 1,808 42 | 27 04 | 810 00 | 128 81 | 206 78 |
| W. T. Chipman, clerk, Wareham, | 265 25 | 577 17 | - | 6 00 | 330 18 | 175 60 |
| C. E. Howard, clerk, Clinton, | 281 25 | 1,419 47 | 30 00 | - | 1,146 92 | 331 50 |
| F. E. Boyce, clerk, Gardner, | 41 98 | 1,111 06 | 7 00 | - | 836 09 | 170 00 |
| C. A. Dewey, justice, Milford, | 61 40 | 959 45 | 7 00 | 100 00 | 766 17 | 293 20 |
| Clark Jilison, justice, Southbridge, | 47 55 | 264 54 | 75 00 | 61 00 | 240 87 | 118 70 |
| Arthur A. Putnam, justice, Uxbridge, | 1,251 70 | 4,878 14 | 60 00 | 4,500 00 | 2,769 13 | 1,311 90 |
| E. C. Bates, justice, Westborough, | | | | | | |
| John A. Thayer, clerk, Worcester, | | | | | | |
| Central Worcester, | | | | | | |
| | \$9,864 89 | \$63,986 85 | \$605 62 | \$12,983 24 | \$15,656 01 | \$19,686 55 |

TABLE No. 3. — Returns of District Courts for the Year ending Dec. 31, 1893 — Concluded.

| | | Amount Retained for Own Use. | Salary. | Cash Balance, Dec. 31, 1893. | Total Expenditures. | Fees and Expenses of Officers Certified to City or Town Treasurers. |
|--|-----------|------------------------------|-------------|------------------------------|---------------------|---|
| Frederic C. Swift, justice, Barnstable. | • • • • • | 94 00 | \$1,000 00 | - | \$2,380 10 | \$281 81 |
| James H. Hopkins, justice, Provincetown. | • • • • • | 143 00 | 758 76 | - | 1,454 76 | 101 27 |
| Henry S. Lyons, clerk, North Adams. | • • • • • | 53 25 | 900 00 | \$22 30 | 4,116 74 | 301 45 |
| W. B. Smith, clerk, Pittsfield. | • • • • • | 62 05 | 900 00 | - | 3,043 42 | 315 24 |
| D. J. Coleman, clerk, Great Barrington. | • • • • • | 124 75 | 1,900 00 | 43 50 | 3,407 78 | 971 37 |
| A. B. Leonard, clerk, Fall River. | • • • • • | 187 50 | 1,900 00 | 619 42 | 20,846 62 | 4,577 06 |
| T. J. Cobb, clerk, New Bedford. | • • • • • | 3 00 | 1,150 00 | 1,957 78 | 10,476 81 | 103 49 |
| Albert Fuller, clerk, Taunton. | • • • • • | 45 00 | 1,100 00 | - | 6,780 71 | 3,878 07 |
| G. W. Cate, justice, Amesbury. | • • • • • | 129 00 | 1,200 00 | 47 38 | 3,156 28 | - |
| William Perry, clerk, Salem. | • • • • • | 16 00 | 1,200 00 | 20 00 | 5,542 00 | 28 78 |
| George Robinson, justice, Palmer. | • • • • • | 67 25 | 1,200 00 | 30 99 | 2,632 90 | 1,228 27 |
| Henry Fuller, clerk, Westfield. | • • • • • | 104 00 | 1,150 00 | 25 00 | 2,126 23 | 493 01 |
| H. H. Chilson, clerk, Northampton. | • • • • • | 8 25 | 1,150 00 | 783 45 | 2,088 71 | 1,231 19 |
| J. S. Keyes, justice, Concord. | • • • • • | 3 00 | 800 00 | 11 87 | 2,085 15 | 243 83 |
| J. H. Ladd, clerk, South Framingham. | • • • • • | 41 90 | 800 00 | 25 05 | 2,221 08 | 50 94 |
| E. W. Tyler, clerk, Malden. | • • • • • | 99 00 | 2,000 00 | 4 03 | 10,372 41 | 493 71 |
| W. N. L., clerk, Cambridge. | • • • • • | 167 50 | 1,400 00 | 208 24 | 7,922 95 | 14 07 |
| Dudley Rogers, clerk, Waltham. | • • • • • | 167 50 | 1,400 00 | 45 52 | 7,922 95 | 344 10 |
| Arthur E. Gage, clerk, Woburn. | • • • • • | 192 25 | 1,400 00 | 404 22 | 4,570 08 | 2,014 50 |
| J. P. S. Churehill, clerk, Quincy. | • • • • • | 36 25 | 850 00 | 922 33 | 7,162 18 | 1,841 24 |
| B. R. Doody, clerk, Stoughton. | • • • • • | 30 00 | 650 00 | - | 7,866 12 | 835 27 |
| O. W. Soule, clerk, Abington. | • • • • • | 16 00 | 650 00 | - | 3,708 87 | 210 86 |
| R. A. Hathaway, clerk, Plymouth. | • • • • • | 101 25 | 600 00 | 40 30 | 1,673 33 | 514 75 |
| W. L. Chipman, clerk, Wareham. | • • • • • | 52 00 | 600 00 | - | 3,582 18 | 209 62 |
| F. E. Howard, clerk, Clinton. | • • • • • | 82 50 | 600 00 | - | 3,626 00 | 476 52 |
| C. B. Boyce, clerk, Milford. | • • • • • | 3 00 | 1,600 00 | 50 30 | 4,141 41 | 380 52 |
| Clark Jilison, justice, Southbridge. | • • • • • | 22 00 | 1,500 00 | 52 79 | 2,943 99 | 1,790 18 |
| Arthur A. Putnam, justice, Uxbridge. | • • • • • | 25 | 1,400 00 | 3,516 17 | 8,516 17 | 1,289 36 |
| E. C. Bates, justice, Westborough. | • • • • • | - | 1,000 00 | 12 06 | 1,819 51 | 470 96 |
| John A. Thayer, clerk, Worcester. | • • • • • | - | 2,250 00 | - | 17,020 87 | 747 75 |
| | | \$2,031 70 | \$52,925 45 | \$55,979 35 | \$1,083,318 06 | - |

TABLE No. 4. — Returns of Police Courts for the Year ending Dec. 31, 1893.
RECEIPTS.

| | Defendants. Fines. | Defendants. Expenses. | Forfeitures. | Complaints in Bailable Cases. | Defendants in Bailable (Bonds). | Bailed in Lieu of Surety. | Balance of Writs. | Justices. | Other Civil | Naturaliza- tion. |
|---|-----------------------|--------------------------|--------------|-------------------------------------|---------------------------------------|---------------------------------|-------------------|------------|----------------|----------------------|
| P. H. Casey, justice, Lee. | \$1,035 91 | - | - | - | - | - | \$5 80 | \$33 00 | \$5 00 | - |
| Keyes Danforth, justice, Williamstown. | 633 58 | - | - | - | - | - | 1 50 | 13 00 | 1 10 | - |
| Chas. D. Smith, clerk, Gloucester. | 3,522 29 | \$210 13 | - | - | - | - | 68 30 | 348 00 | 41 50 | \$328 00 |
| Edward B. George, clerk, Haverhill. | 5,303 88 | - | - | - | - | - | 30 45 | 175 00 | 18 25 | 106 00 |
| William F. Moyses, clerk, Lawrence. | 6,951 00 | - | - | - | - | - | 23 35 | 231 00 | 12 75 | 455 00 |
| Henry C. Oliver, clerk, Lynn. | 3,183 50 | 7 50 | - | - | - | - | 110 16 | 633 00 | 324 25 | 185 00 |
| Edward F. Bartlett, clerk, Newburyport. | 1,175 00 | 22 46 | - | - | - | - | 5 40 | 52 00 | 6 45 | 68 00 |
| Cornelius J. Driscoll, clerk, Chicopee. | 2,041 00 | - | - | - | - | - | 12 00 | 50 00 | 10 50 | 151 00 |
| Thomas J. Tierney, clerk, Holyoke. | 5,717 00 | - | - | - | - | - | 80 98 | 404 00 | 64 02 | 430 00 |
| George Leonard, clerk, Springfield. | 5,345 40 | - | - | - | - | - | 79 80 | 628 50 | 107 25 | 115 00 |
| James F. Savage, clerk, Lowell. | 6,987 73 | 95 79 | - | - | - | - | 101 80 | 582 00 | 140 08 | 535 00 |
| J. F. J. Otterson, clerk, Marlborough. | 1,815 03 | 2 00 | - | - | - | - | 10 45 | 82 00 | 21 80 | 98 00 |
| Middlesex. | 1,817 06 | - | - | - | - | - | 18 20 | 139 00 | 64 82 | 80 00 |
| Middlesex. | 3,374 06 | - | - | - | - | - | 27 45 | 249 00 | 166 80 | - |
| Middlesex. | 1,084 10 | 14 30 | - | - | - | - | 11 88 | 168 00 | 21 80 | 68 00 |
| Norfolk. | 3,691 17 | 6 12 | - | - | - | - | 47 88 | 246 00 | 84 75 | 312 00 |
| Henry M. Williams, clerk, Somerville. | 4,918 91 | - | \$20 00 | - | - | - | 885 00 | 227 00 | 20 70 | 8 00 |
| Warren Goddard, clerk, Brockton. | 4,918 91 | - | - | - | - | - | 1,950 00 | 246 00 | 21 80 | 238 00 |
| Joseph N. Curley, clerk, Chelsea. | 4,627 75 | 170 93 | - | - | - | - | 43 35 | - | - | - |
| Wylon G. Hayes, clerk, Fitchburg. | \$63,058 27 | \$529 25 | \$20 00 | \$23 00 | - | \$16,223 60 | \$696 36 | \$4,495 50 | \$1,166 92 | \$3,606 00 |

TABLE No. 4. — *Returns of Police Courts for the Year ending Dec. 31, 1893* — Continued.

RECEIPTS.

| | Fees not payable to any Public Authority. | Money paid into Court. | Salary from County. | From County for Criminal Costs. Witnesses Fees. | From County for Sundry Expenses. | From City or Towns. Costs. | In By-Laws. | Other Moneys. | Balance on hand Jan. 1, 1893. | Total Receipts. |
|---|---|------------------------|---------------------|---|----------------------------------|----------------------------|-------------|---------------|-------------------------------|-----------------|
| P. H. Casey, Justice, Lee, | - | - | \$800 00 | \$232 90 | - | - | - | - | - | \$2,110 61 |
| Keyes Danforth, Justice, Williamstown, | - | - | 300 00 | 2 40 | - | - | - | - | - | 961 58 |
| Chas. D. Smith, clerk, Gloucester, | \$335 00 | - | 1,000 00 | 565 90 | - | - | - | \$414 45 | 6,828 57 | 6,828 57 |
| Edward B. George, clerk, Haverhill, | - | - | 1,000 00 | 408 10 | - | - | - | - | 7,235 38 | 7,235 38 |
| William F. Moyes, clerk, Lawrence, | \$199 50 | - | 1,000 00 | 537 35 | - | - | - | - | 9,097 45 | 9,097 45 |
| Henry C. Oliver, clerk, Lynn, | 257 00 | 140 00 | 1,200 00 | 459 10 | - | - | - | - | 9,529 24 | 9,529 24 |
| Edward F. Bartlett, clerk, Newburyport, | 64 50 | - | 1,200 00 | 168 90 | - | \$1 60 | - | - | 3,363 23 | 3,363 23 |
| Cornelius J. Driscoll, clerk, Chicopee, | 15 50 | 100 00 | 500 00 | 209 20 | - | - | - | - | 146 62 | 2,556 65 |
| Thomas J. Tierney, clerk, Holyoke, | 218 00 | - | 500 00 | 268 50 | - | - | - | - | - | 3,325 80 |
| George Leonard, clerk, Springfield, | 358 23 | - | 1,300 00 | 623 79 | - | - | - | \$116 48 | 11,707 17 | 11,707 17 |
| James F. Savage, clerk, Lowell, | 206 40 | 26 23 | 1,400 00 | 1,100 00 | - | - | - | - | 9 23 | 16,933 80 |
| J. F. J. Ottersen, clerk, Marlborough, | 79 00 | 40 00 | 1,000 00 | 100 00 | - | - | - | - | 1,995 24 | 14,005 44 |
| Henry L. Whitteley, clerk, West Newton, | 50 00 | - | 800 31 | 100 00 | - | - | - | - | 39 40 | 3,353 55 |
| Herbert A. Chapin, clerk, Somerville, | 430 00 | 4 61 | 1,000 00 | 500 00 | \$4 30 | - | - | - | 590 43 | 3,472 60 |
| Henry M. Williams, clerk, Brookline, | 36 50 | - | 500 00 | 600 60 | - | - | - | - | 81 20 | 5,823 36 |
| Warren Goddard, clerk, Brockton, | 569 23 | - | 800 00 | - | - | - | - | - | 1,039 62 | 2,933 67 |
| Joseph N. Curley, clerk, Chelsea, | 533 00 | 85 00 | 1,000 00 | - | - | - | - | - | 200 00 | 7,628 75 |
| Wylon G. Hayes, clerk, Fitchburg, | 434 80 | - | 1,000 00 | 434 68 | - | - | - | - | - | 7,474 51 |
| Worcester, | \$3,499 15 | \$730 84 | \$17,383 31 | \$6,310 42 | \$4 30 | \$1 60 | - | \$116 48 | \$7,880 51 | \$125,800 14 |

TABLE No. 4. — *Returns of Police Courts for the Year ending Dec. 31, 1893* — Concluded.

EXPENDITURES.

| | To County Treasurer. | To City or Town Treasurer. | Complaints or Informations. | Other Persons. | Officers. | Witnesses. | Amount Retained for own Use. | Salary. | Cash Balance Dec. 31, 1893. | Total Expenditures. | Fees and Expenses of Officers Certified to City and Town Treasurers. |
|--|----------------------|----------------------------|-----------------------------|----------------|------------|------------|------------------------------|-------------|-----------------------------|---------------------|--|
| P. H. Casey, Justice, Lee. | \$41 80 | \$1,035 91 | - | - | - | \$214 30 | - | \$800 00 | \$18 60 | \$2,110 61 | \$662 72 |
| Keyes Danforth, Justice, Williamstown. | 18 00 | 312 26 | - | - | \$256 42 | 64 90 | - | 300 00 | - | 951 58 | 256 42 |
| Chas. D. Smith, clerk, Gloucester. | 1,033 00 | 3,534 17 | - | \$430 05 | 1 35 | 655 00 | - | 1,000 00 | 175 00 | 6,523 57 | 44 53 |
| Edward B. George, clerk, Haverhill. | 323 90 | 4,641 78 | - | 25 00 | 737 10 | 408 10 | \$199 50 | 1,000 00 | - | 7,235 38 | - |
| William F. Moyer, clerk, Lawrence. | 722 10 | 6,936 00 | \$15 00 | 140 00 | - | 537 35 | 257 00 | 1,300 00 | - | 9,507 45 | - |
| Henry C. Oliver, clerk, Lynn. | 1,259 91 | 3,042 50 | - | 640 00 | - | 449 10 | 64 50 | 1,200 00 | 2,873 23 | 9,523 24 | - |
| E. F. Bartlett, clerk, Newburyport. | 289 25 | 1,200 00 | 5 00 | 100 00 | 14 08 | 127 80 | 13 50 | 800 00 | 37 02 | 2,553 45 | 4 61 |
| C. F. Briggs, clerk, Chicopee. | 186 30 | 1,993 94 | - | 12 92 | 54 14 | 280 50 | 218 00 | 500 00 | - | 3,203 90 | - |
| Thomas J. Tierney, clerk, Holyoke. | 1,129 47 | 5,104 84 | 74 98 | \$,868 00 | 612 18 | 298 50 | 363 22 | 1,300 00 | 7 03 | 11,707 17 | - |
| George Leonard, clerk, Springfield. | 936 36 | 4,604 92 | - | 6,739 63 | 317 78 | 622 79 | - | 1,300 00 | 2,506 10 | 16,983 80 | 279 68 |
| James F. Savage, clerk, Lowell. | 2,004 98 | 6,280 35 | 63 70 | 801 10 | 492 21 | 1,660 70 | 206 40 | 1,300 00 | 71 76 | 14,903 44 | 51 36 |
| J. F. Otterson, clerk, Marlborough. | 85 00 | 1,515 00 | - | 26 00 | 107 09 | 138 70 | 79 00 | 900 00 | 326 46 | 3,353 56 | - |
| H. L. Whitteley, clerk, West Newton. | 429 25 | 3,259 50 | - | 4 30 | - | 543 55 | 50 00 | 733 31 | 34 71 | 3,472 60 | 107 06 |
| Herbert A. Chapin, clerk, Somerville. | 298 19 | 1,252 47 | 134 50 | 18 31 | 390 36 | 561 10 | 430 00 | 1,000 00 | 616 64 | 6,523 38 | - |
| Henry M. Williams, clerk, Brookline. | 736 63 | 3,539 01 | 110 16 | 1,171 00 | 6 12 | 97 20 | 36 60 | 600 00 | 187 86 | 2,938 67 | 1,866 53 |
| Warren Goddard, clerk, Brockton. | 302 60 | 4,729 01 | 178 00 | 1,886 00 | 7 50 | 569 23 | 563 00 | 800 00 | 86 00 | 7,023 75 | 823 29 |
| Joseph N. Curley, clerk, Chelsea. | 649 35 | 3,762 38 | 90 60 | 1,980 00 | 866 43 | 523 96 | 434 80 | 1,000 00 | - | 7,474 51 | - |
| Wylon G. Hayes, clerk, Fitchburg. | | | | | | | | | | 9,167 01 | 151 34 |
| | \$10,395 08 | \$68,020 13 | \$652 94 | \$17,922 31 | \$5,063 34 | \$7,425 49 | \$3,499 15 | \$17,283 31 | \$6,806 39 | \$125,800 14 | - |

TABLE No. 5. — *Returns of Municipal Courts for the Year ending Dec. 31, 1893.*

RECEIPTS.

| | From Defendants. Fines. | From Defendants. Expenses. | Copies. | Complain- ants in Bastardy Process. | Defendants in Bastardy. (Bonds.) | Naturall- ization Fees. | Bail Fees, etc, not pay- able to Public Authority. | Bail Money deposited in Lien of Sureties. |
|---|-------------------------------|----------------------------------|---------|--|--|-------------------------------|---|--|
| Fred. C. Ingalls, clerk (Criminal), Boston, | \$44,535 00 | \$2 40 | \$15 75 | \$85 50 | \$19 00 | - | \$45 75 | \$29,423 00 |
| John F. Brown, clerk (Civil), Boston, | - | - | - | - | - | - | 36 25 | - |
| Willard S. Allen, clerk, East Boston, | 3,070 00 | - | - | - | - | - | 302 00 | 200 00 |
| Frank J. Tuttle, clerk, South Boston, | 3,738 00 | - | - | 6 00 | - | - | 687 50 | 600 00 |
| William J. Hatton, clerk, Charlestown, | 3,595 00 | - | - | - | - | - | - | - |
| Maurice J. O'Connell, clerk, Roxbury, | 9,233 40 | - | 15 00 | 16 00 | - | \$1 00 | - | 3,760 00 |
| Edward W. Brewer, clerk, West Roxbury, | 1,137 40 | - | - | 1 50 | - | 5 00 | 132 25 | 1,860 00 |
| N. T. Merritt, Jr., clerk, Dorchester, | 2,065 00 | 3 20 | - | 1 50 | - | - | 306 00 | 20 00 |
| Henry Baldwin, justice, Brighton, | 1,649 30 | 1 80 | 4 90 | 2 00 | - | - | - | - |
| | \$60,041 10 | \$7 40 | \$35 65 | \$112 50 | \$19 00 | \$6 00 | \$1,509 75 | \$35,583 00 |

TABLE No 5. — *Returns of Municipal Courts for the Year ending Dec. 31, 1893* — Continued.

RECEIPTS.

| | Salary from County. | From County for Witness Fees, etc. | From Parties in Civil Cases. | From Defendants. Forfeitures. | From Other Parties. | Balance on Hand Jan. 1, 1893. | Total Receipts. |
|--|------------------------|--|------------------------------------|-------------------------------------|------------------------|-------------------------------------|--------------------|
| Fred C. Ingalls, clerk (Criminal), Boston, | \$3,000 00 | - | - | - | - | \$1,100 00 | \$73,244 40 |
| John F. Brown, clerk (Civil), Boston, | 3,000 00 | - | \$14,980 55 | - | - | - | 18,038 80 |
| Willard S. Allen, clerk, East Boston, | 1,400 00 | \$493 50 | 96 35 | - | - | 100 00 | 5,661 85 |
| Frank J. Tuttle, clerk, South Boston, | 1,400 00 | 997 75 | 104 65 | \$20 00 | - | - | 7,553 90 |
| William J. Hutton, clerk, Charlestown, | 1,300 00 | - | 85 80 | - | - | 79 00 | 5,059 80 |
| Maurice J. O'Connell, clerk, Roxbury, | 1,350 00 | - | 373 15 | 100 00 | - | 200 00 | 15,048 55 |
| Edward W. Brewer, clerk, West Roxbury, | 900 00 | - | 106 80 | - | \$410 00 | - | 4,543 14 |
| N. T. Merritt, Jr., clerk, Dorchester, | 950 00 | - | 75 45 | - | - | 201 35 | 3,022 50 |
| Henry Baldwin, justice, Brighton, | - | - | 150 55 | - | - | - | 1,808 55 |
| | \$12,300 00 | \$1,491 25 | \$16,982 80 | \$120 00 | \$410 00 | \$1,680 35 | \$139,569 49 |

TABLE No. 5.—Returns of Municipal Courts for the Year ending Dec. 31, 1893—Concluded.

EXPENDITURES.

| | Paid Collector. | Paid Complaints or Informants. | Retained for Salary. | Retained Fees, Ball, etc. | Ball Money returned to Defendants. | Ball paid Clerk of Superior Court. | Witness Fees. | Officers' Expenses. | Other Persons. | Balance on Hand Dec. 31, 1893. | Total Expenses. | Fees and Expenses of Officers certified to City and Town Treasurers. |
|---|-----------------|--------------------------------|----------------------|---------------------------|------------------------------------|------------------------------------|---------------|---------------------|----------------|--------------------------------|-----------------|--|
| Fred. C. Ingalls, clerk (Criminal), Boston, | \$45,085 65 | - | \$3,000 00 | \$45 75 | \$28,013 00 | - | - | - | - | \$1,500 00 | \$75,244 40 | - |
| John F. Brown, clerk (Civil), Boston, | 14,990 55 | - | 3,000 00 | 36 25 | - | - | - | - | - | - | 18,026 80 | - |
| Willard S. Allen, clerk, East Boston, | 3,076 35 | \$40 00 | 1,400 00 | 302 00 | - | \$200 00 | \$403 50 | - | \$50 00 | 100 00 | 5,631 85 | - |
| Frank J. Tuttle, clerk, South Boston, | 3,883 65 | 15 00 | 1,400 00 | 637 50 | 300 00 | 300 00 | 960 10 | \$11 06 | 26 50 | - | 7,533 90 | - |
| William J. Hatton, clerk, Charlestown, | 3,640 80 | - | 1,800 00 | - | - | - | - | - | 40 00 | 79 00 | 5,059 80 | - |
| Maurice J. O'Connell, clerk, Roxbury, | 7,716 65 | 93 00 | 1,350 00 | 15 00 | 3,760 00 | - | 1,738 65 | 154 32 | 20 93 | 200 00 | 15,048 55 | \$164 32 |
| Edward W. Brewer, clerk, West Roxbury, | 1,117 17 | 86 69 | 900 00 | 132 25 | - | - | - | - | 432 93 | 1,374 10 | 4,543 14 | - |
| N. T. Merritt, Jr., clerk, Dorchester, | 1,728 70 | 10 00 | 950 00 | 306 00 | 20 00 | - | 333 25 | 52 85 | 23 30 | 194 40 | 3,623 50 | - |
| Henry Baldwin, justice, Brighton, | 1,708 55 | - | - | - | - | 100 00 | - | - | - | - | 1,808 55 | 11 75 |
| | \$82,918 07 | \$244 69 | \$13,300 00 | \$1,524 75 | \$32,063 00 | \$600 00 | \$3,530 50 | \$218 22 | \$592 76 | \$3,947 50 | \$130,500 49 | - |

TABLE NO. 6. — *Returns of Trial Justices for the Year ending Dec. 31, 1893.*

RECEIPTS.

| NAME. | Town. | County. | From Defendants for Fines. | From Defendants for Expenses. | Civil Fees, Entries. | Civil Fees, Inquests. | Civil Fees, Poor Debtor Proceedings. |
|-----------------------|------------------|---------------|----------------------------------|-------------------------------------|-------------------------|--------------------------|--|
| William C. Spaulding, | W. Stockbridge, | Berkshire, | \$31 02 | - | - | - | \$10 00 |
| Charles J. McIlvaine, | Edgartown, | Dukes County, | 120 47 | \$101 75 | \$4 00 | - | - |
| George H. Poor, | Andover, | " | 259 00 | - | 1 00 | - | - |
| George L. Wall, | N. Andover, | " | 40 00 | - | - | - | - |
| Orlando B. Tenney, | Georgetown, | " | 62 00 | - | - | - | - |
| Charles Gayward, | Lewish, | " | 246 61 | - | - | \$10 10 | - |
| Stephen Gilman, | Lynfield, | " | 40 00 | - | - | - | - |
| William C. Fabens, | Marblehead, | " | 352 00 | 26 50 | 1 00 | - | - |
| William Nutting, Jr., | Marblehead, | " | 295 00 | - | - | - | - |
| William M. Rogers, | Methuen, | " | 550 00 | 22 20 | - | - | - |
| Joseph T. Wilson, | Nahant, | " | 258 00 | - | - | - | - |
| Amos Merrill, | Peabody, | " | 601 58 | - | - | - | - |
| J. Scott Todd, | Rowley, | " | 20 00 | - | - | - | - |
| George M. Amerige, | Saugus, | " | 309 00 | - | - | - | - |
| Henry W. Hillings, | Conway, | " | 25 00 | - | - | - | - |
| Farker D. Martin, | S. Deerfield, | Franklin, | 147 66 | - | 1 00 | - | - |
| Fred. L. Greene, | Greenfield, | " | 240 00 | 11 78 | 42 00 | - | - |
| Dana Malone, | Greenfield, | " | 231 00 | 22 03 | 34 70 | - | - |
| Erastus F. Gunn, | Montague, | " | 79 00 | - | - | - | - |
| Charles Pomeroy, | Northfield, | " | - | - | - | - | - |
| Edward Bicknell, | Orange, | " | - | - | - | - | - |
| Vanah M. Porter, | Kowe, | " | - | - | - | - | - |
| Samuel D. Bardwell, | Shelburne Falls, | " | 10 00 | - | 12 62 | - | - |
| William S. Dana, | Turner's Falls, | " | 133 80 | - | 16 00 | - | - |
| Charles L. Hill, | Hudson, | " | 263 00 | - | - | - | - |
| Henry C. Mulligan, | Natick, | Middlesex, | 499 00 | - | - | 5 00 | - |
| Allen Coffin, | Nantucket, | " | 729 00 | - | 23 00 | - | - |
| Rufus G. Fairbanks, | Nantucket, | " | 105 00 | - | 1 00 | - | - |
| Nathan A. Cook, | Bellingham, | Norfolk, | 399 00 | - | 64 00 | 10 00 | 6 00 |
| Tho's H. Wakefield, | Bellingham, | " | 115 00 | 18 56 | - | - | - |
| Aug. B. Wentworth, | Dedham, | " | 863 56 | 105 08 | 32 50 | 21 60 | 23 00 |
| Henry H. Gallison, | Franklin, | " | - | - | - | - | - |
| | | | 196 08 | - | 2 00 | - | 3 00 |

| | | | | | | | |
|------------------------|-------------------|--------------|-------------|------------|----------|----------|---------|
| Henry B. Terry, . | Hyde Park, . | " | 1,066 00 | - | 60 25 | - | 23 00 |
| Emery Grover, . | Needham, . | " | 521 00 | - | 13 00 | 66 35 | - |
| John C. Lane, . | Norwood, . | " | 50 00 | - | 5 00 | 10 60 | - |
| Charles E. Darling, . | Walpole, . | " | 118 38 | 28 76 | - | - | - |
| Charles E. Waaburne, . | Wellesley, . | " | 90 00 | 19 23 | 2 00 | 23 00 | 1 00 |
| Samuel Warner, . | Wrentham, . | " | 314 21 | - | - | - | - |
| Matthew Walker, . | Barre, . | Worcester, . | 145 76 | 22 24 | 14 00 | - | - |
| John Mulcahy, . | Brookfield, . | " | 323 40 | 685 04 | - | 10 10 | - |
| John F. Green, . | Hardwick, . | " | 350 00 | - | 5 00 | - | 8 00 |
| Chauncey W. Carter, . | Leominster, . | " | 216 33 | - | - | - | - |
| William E. White, . | No. Brookfield, . | " | 378 00 | 123 24 | 15 00 | - | - |
| Syl. Bethwell, . | Spencer, . | " | 497 00 | - | 7 00 | - | - |
| Albert W. Curtis, . | Warren, . | " | 636 24 | - | 7 00 | - | - |
| John W. Tyler, . | W. Brookfield, . | " | 573 00 | 25 09 | - | - | - |
| Horace W. Bush, . | Winchendon, . | " | 50 00 | 79 19 | - | 15 20 | - |
| Frank B. Spalter, . | | | 198 00 | | | | |
| | | | \$12,838 03 | \$1,390 72 | \$352 97 | \$170 95 | \$74 00 |

* Return received too late for tabulation.

TABLE No. 6. — Returns of Trial Justices for the Year ending Dec. 31, 1893 — Continued.

RECEIPTS.

| NAME. | Town. | County. | FROM COUNTY TREASURER. | | | | Other Civil Fees. | Miscellaneous. | Fees advanced by Justice. | Balance on Hand Jan. 1, 1893. | Total Receipts. |
|-----------------------|-------------------|---------------|------------------------|-----------------|---------------|--------------------|-------------------|----------------|---------------------------|-------------------------------|-----------------|
| | | | Justice Fees. | Officers' Fees. | Witness Fees. | Advanced for Fees. | | | | | |
| William C. Spaulding, | West Stockbridge, | Berkshire, | \$130 50 | - | \$28 50 | - | \$17 77 | - | \$8 60 | \$5 00 | \$208 62 |
| Charles J. McIlvaine, | Edgartown, . | Dukes County, | 148 00 | - | 10 50 | - | - | - | 6 50 | - | 419 10 |
| George H. Foot, | Andover, . | Essex, | 198 50 | - | - | \$40 00 | 2 50 | - | - | 6 40 | 604 90 |
| George L. Well, | North Andover, | " | 70 00 | - | - | 125 00 | - | - | - | 38 70 | 234 20 |
| Orlando B. Tenney, | Georgetown, | " | 41 50 | - | - | - | - | - | - | 3 20 | 106 70 |
| Charles A. Sayward, | Ipswich, | " | 311 00 | \$10 68 | 60 24 | - | - | \$15 00 | - | 16 44 | 680 07 |
| Stephen Gilman, | Lynnfield, | " | 11 18 | - | 14 54 | - | - | - | - | - | 75 72 |
| William C. Fabens, | Marblehead, | " | 223 00 | - | 15 60 | - | - | - | - | 174 32 | 792 42 |
| William Nutting, Jr., | Marblehead, | " | 227 20 | - | 15 40 | - | - | - | - | 4 43 | 843 08 |
| William M. Rogers, | Methuen, | " | 316 50 | - | - | 20 00 | - | - | - | 131 00 | 1,189 70 |
| Joseph T. Wilson, | Nahant, | " | - | - | - | - | - | - | - | - | 258 00 |
| Amos Merrill, | Peabody, | " | 1,182 50 | - | - | - | - | 10 00 | - | 145 20 | 1,939 28 |
| J. Scott Todd, | Rowley, | " | 40 00 | - | - | 25 00 | - | - | 3 90 | - | 63 90 |
| George M. Amerige, | Saugus, | " | 387 50 | - | - | 8 20 | - | - | 31 20 | - | 752 70 |
| Henry W. Billings, | Conway, | Franklin, | 3 00 | - | - | 150 00 | - | - | - | 30 | 36 50 |
| Parker D. Martin, | South Deerfield, | " | 119 00 | - | - | 64 00 | 44 85 | 22 00 | - | 6 35 | 446 01 |
| Fred. L. Greene, | Greenfield, | " | 414 50 | - | 36 00 | - | - | 2,050 00 | - | 180 29 | 3,063 42 |
| Dana Malone, | Greenfield, | " | 360 26 | - | - | 75 00 | - | - | 26 15 | - | 749 14 |
| Erastus F. Gunn, | Montague, | " | 51 88 | - | 30 00 | - | - | - | 3 50 | 3 00 | 167 38 |
| Charles Pomeroy, | Northfield, | " | 3 00 | - | - | - | - | - | 3 60 | - | 3 60 |
| Edward Bicknell, | Orange, | " | - | - | - | - | - | - | - | - | - |
| Vanah M. Porter, | Rowe, | " | 16 00 | - | - | 10 00 | - | 6 80 | - | 7 70 | 63 02 |
| Samuel D. Bardwell, | Shelburne Falls, | " | 64 98 | - | - | - | - | - | 10 80 | 10 50 | 285 88 |
| William S. Dana, | Turner's Falls, | " | 432 00 | 12 60 | - | 300 00 | - | - | - | 7 81 | 1,255 87 |
| Charles H. Hill, | Hudson, | Middlesex, | 438 00 | - | 50 00 | 3 14 | - | - | - | 16 10 | 1,084 26 |
| Henry C. Mulligan, | Natick, | " | 1,170 00 | - | - | 125 00 | 31 00 | - | 78 02 | 7 10 | 2,090 10 |
| Allen Coffin, | Nantucket, | " | 45 00 | - | 15 60 | - | - | - | - | 32 30 | 198 90 |
| Rufus G. Fairbanks, | Bellingham, | Norfolk, | 395 60 | - | 75 00 | - | 25 50 | 10 00 | - | - | 975 00 |
| Nathan A. Cook, | Bellingham, | " | 23 25 | - | 6 90 | - | - | - | - | - | 163 73 |
| Thomas H. Wakefield, | Dedham, | " | 885 00 | - | - | 100 00 | 101 57 | - | - | 83 22 | 2,245 56 |
| Aug. B. Wentworth, | Dedham, | " | - | - | - | - | - | - | - | - | - |
| Henry H. Gallison, | Franklin, | " | 200 50 | - | - | 100 00 | - | - | - | 24 76 | 596 84 |

| | | | | | | | | | | |
|-----------------------|-------------------|------------|-------------|---------|----------|------------|----------|------------|----------|-------------|
| Henry B. Terry, | Hyde Park, | " | 638 00 | 5 10 | - | 50 00 | - | - | 6 30 | 1,805 55 |
| Emory Grover, | Needham, | " | 340 92 | 4 55 | - | 75 00 | 4 00 | - | 35 91 | 1,116 28 |
| John O. Lane, | Norwood, | " | 147 50 | - | 31 10 | - | 3 00 | - | - | 551 75 |
| Charles R. Darling, | Walden, | " | 113 40 | - | - | - | 2 00 | 50 | 24 50 | 287 64 |
| Charles E. Washburne, | Wellesley, | " | 118 50 | 2 50 | - | - | 7 00 | - | 63 28 | 265 51 |
| Samuel Warner, | Wrentham, | " | 171 75 | - | 28 00 | - | 5 25 | - | - | 519 31 |
| Matthew Walker, | Barre, | " | 45 00 | - | 25 00 | - | 1 25 | 86 | 10 56 | 573 27 |
| John Mulcahy, | Brookfield, | Worcester, | 311 00 | - | 19 00 | - | - | - | - | 1,247 54 |
| John F. Green, | Hardwick, | " | 168 00 | - | 45 00 | - | - | - | - | 621 00 |
| Chauncey W. Carter, | Leominster, | " | 284 00 | 35 05 | 47 50 | - | - | - | 75 30 | 576 25 |
| William E. White, | North Brookfield, | " | 410 00 | - | 15 80 | 15 00 | 10 00 | 175 62 | 254 00 | 945 84 |
| Syl. Bothwell, | Spencer, | " | 302 00 | - | 17 00 | 20 00 | - | - | - | 1,634 25 |
| Albert W. Curtis, | Warren, | " | 306 00 | - | 82 80 | 8 70 | - | 7 00 | - | 1,034 24 |
| John W. Tyler, | West Brookfield, | " | 104 20 | - | - | - | 5 00 | - | - | 918 70 |
| Horace W. Bush, | Winchendon, | " | 313 65 | - | - | 125 00 | - | - | 3 70 | 219 09 |
| Frank B. Spalter, | | " | | | | | | | | 754 74 |
| | | | \$12,309 73 | \$70 48 | \$677 48 | \$1,439 04 | \$200 69 | \$2,314 50 | \$353 25 | \$1,406 36 |
| | | | | | | | | | | \$33,558 20 |

* Return received too late for tabulation.

TABLE No. 6. — Returns of Trial Justices for the Year ending Dec. 31, 1893 — Concluded.

EXPENDITURES.

| | PAID COUNTY TREASURER. | | City or Town | Officers. | Witnesses. | Complainants or Informants. | Other Persons. | Fees retained by Justice. | CASH BALANCE TO BE PAID. | | | Total Expenditures. | Fees and Expenses of Officers or Town Treasurers. |
|-------------------------------------|------------------------|-----------------|--------------|-----------|------------|-----------------------------|----------------|---------------------------|--------------------------|------------|-----------------------|---------------------|---|
| | Fines. | Unclaimed Fees. | | | | | | | Officers. | Witnesses. | County, City or Town. | | |
| Wm. C. Spaulding, West Stockbridge, | - | - | \$7 00 | \$8 83 | \$37 10 | - | - | \$130 50 | \$20 19 | - | - | \$203 62 | \$144 87 |
| Charles J. McIlvaine, Edgartown, | - | - | 40 57 | 94 56 | 64 20 | \$40 00 | - | 179 77 | - | - | - | 419 10 | 87 39 |
| George H. Poor, Andover, | - | - | 246 50 | - | 30 10 | 12 50 | - | 199 50 | - | - | - | 594 90 | - |
| George L. Weil, North Andover, | - | - | 75 00 | - | 30 10 | - | \$1 90 | 72 50 | \$16 30 | - | \$118 50 | 204 90 | 22 10 |
| Orlando E. Tenney, Georgetown, | - | - | 32 00 | 10 00 | 26 30 | - | 23 00 | 41 50 | - | 20 | - | 708 70 | 49 90 |
| Charles A. Sayward, Ipswich, | - | - | 106 14 | 104 31 | 49 14 | - | - | 336 10 | - | - | 4 38 | 690 07 | 67 93 |
| Stephen Gliman, Lynnfield, | - | - | 39 30 | 2 34 | 13 90 | - | 4 00 | 11 18 | - | - | - | 75 72 | - |
| William C. Fabens, Marblehead, | - | - | 501 43 | 8 64 | 7 10 | - | 94 | 261 90 | 1 83 | - | 12 41 | 792 42 | 8 64 |
| William Nutting, Jr., Marblehead, | - | - | 745 20 | 70 00 | 18 00 | 10 00 | - | 227 20 | 13 00 | - | 225 00 | 542 63 | 4 20 |
| William M. Rogers, Methuen, | - | - | 105 90 | 4 74 | 16 00 | - | - | 316 50 | - | - | 33 00 | 1,139 70 | 18 70 |
| Joseph T. Wilson, Nahant, | - | - | 566 48 | - | 24 80 | - | - | 1,192 50 | - | - | 11 00 | 1,639 28 | 4 74 |
| Amos Merrill, Peabody, | - | - | 1 21 | 18 79 | 3 90 | - | - | 40 00 | - | - | 150 76 | 63 90 | 1 58 |
| J. Scott Todd, Rowley, | - | - | 304 00 | - | 56 20 | - | - | 387 50 | - | - | 5 00 | 752 70 | - |
| George M. Amerige, Saugus, | - | - | 25 00 | - | 8 50 | - | - | 3 00 | - | - | - | 36 50 | 21 10 |
| Henry W. Billings, Conway, | \$6 77 | - | 44 58 | 92 90 | 66 80 | - | 5 00 | 115 00 | 10 00 | 89 55 | 15 41 | 446 01 | 147 00 |
| Parker D. Martin, South Deerfield, | - | - | 806 17 | 111 15 | 105 50 | 5 75 | 2,050 00 | 504 85 | - | - | - | 3,083 42 | 367 74 |
| Fred. L. Greene, Greenfield, | - | - | 62 11 | 179 92 | 71 90 | 5 00 | - | 400 96 | 29 25 | - | - | 749 14 | 186 97 |
| Dana Malone, Greenfield, | - | - | 32 60 | 46 40 | 36 50 | - | - | 51 88 | - | - | - | 167 38 | 87 82 |
| Erastus F. Gunn, Montague, | - | - | - | - | 60 | - | - | 3 00 | - | - | - | 3 60 | 11 50 |
| Charles Pomeroy, Northfield, | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Edward Bicknell, Orange, | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Vanah M. Porter, Rowe, | - | - | 10 00 | - | 9 10 | - | - | 36 22 | - | - | 7 70 | 63 02 | 12 31 |
| Sam. D. Bardwell, Shelburne Falls, | - | - | - | 59 40 | 29 50 | 5 00 | - | 136 98 | - | - | 5 00 | 235 88 | 35 30 |
| William S. Dana, Turner's Falls, | - | - | 100 00 | 142 94 | 255 00 | - | - | 672 46 | 49 86 | - | 35 61 | 1,255 87 | 124 83 |
| Charles L. Hill, Hudson, | - | \$131 34 | - | 443 18 | 63 80 | 17 50 | 3 14 | 423 00 | 2 30 | - | - | 1,084 26 | 443 18 |
| Henry C. Mulligan, Natick, | - | - | 6 02 | 722 98 | 116 80 | - | - | 1,229 00 | 15 30 | - | - | 2,090 10 | 302 10 |
| Allen Coffin, Nantucket, | 72 00 | 2 40 | - | 1 90 | 23 20 | - | - | 97 00 | 2 40 | - | - | 198 90 | 122 20 |
| Rufus G. Fairbanks, Bellingham, | - | - | 399 00 | - | 59 30 | - | - | 503 10 | 13 60 | - | - | 975 00 | 326 74 |
| Nathan A. Cook, Bellingham, | - | - | 103 50 | 5 28 | 14 10 | - | - | 29 25 | - | - | - | 163 73 | 34 85 |
| Thomas H. Wakefield, Dedham, | - | - | 439 78 | 333 18 | 119 40 | 10 41 | 11 50 | 1,056 17 | 3 92 | 2 68 | 27 62 | 2,246 56 | 41 97 |
| Aug. B. Wentworth, Dedham, | - | - | - | - | - | - | 3 50 | - | - | - | - | - | - |

| | 20 00 | 156 08 | 5 34 | 112 05 | 18 27 | - | 205 50 | - | 9 10 | - | 525 34 | 881 90 |
|----------------------------------|---------|------------|------------|------------|----------|------------|-------------|---------|----------|------------|-------------|--------|
| Henry H. Gallison, Franklin, | - | 725 97 | 306 03 | 33 95 | - | - | 721 25 | - | 22 35 | - | 1,896 55 | - |
| Henry E. Terry, Hyde Park, | - | 323 24 | 100 95 | 102 00 | 5 00 | - | 412 87 | - | 8 90 | 27 82 | 1,116 28 | 274 86 |
| Emery Grover, Needham, | - | 50 00 | 4 55 | 38 30 | - | - | 166 10 | - | - | - | 251 75 | 207 84 |
| John C. Lane, Norwood, | - | 98 71 | 49 43 | 29 00 | - | - | 115 60 | - | - | - | 287 64 | 134 78 |
| Charles R. Darling, Walpole, | - | - | 50 86 | 35 40 | - | - | 150 50 | - | 4 60 | 24 15 | 285 51 | 217 41 |
| Charles E. Washburne, Wallesey, | - | - | 60 32 | 74 95 | 1 88 | - | 177 00 | - | - | - | 519 31 | 131 94 |
| Samuel Warner, Wrentham, | - | 205 16 | 60 32 | 32 60 | 2 00 | - | 61 25 | - | - | - | 273 27 | 31 18 |
| Matthew Walker, Barre, | - | 72 05 | 91 81 | 32 60 | 2 00 | - | 321 10 | - | 13 56 | - | 1,347 54 | 262 49 |
| John F. Green, Hardwick, | - | 322 40 | 685 04 | 19 00 | - | - | 178 50 | - | 4 90 | - | 621 00 | 96 00 |
| John Mulcaby, Brookfield, | - | 267 03 | 56 97 | 35 30 | 79 00 | - | 302 00 | - | - | 7 20 | 576 33 | - |
| Chauncey W. Carter, Leominster, | - | 121 33 | 95 00 | 50 80 | - | - | 410 00 | - | 20 40 | 312 07 | 945 94 | 41 91 |
| William E. White, Leominster, | - | 56 89 | 80 98 | 56 60 | - | - | 327 00 | - | 4 52 | 141 00 | 1,634 26 | 115 40 |
| Syl. Bothwell, North Brookfield, | - | 731 00 | 298 86 | 39 88 | - | - | 378 00 | - | - | 13 80 | 1,034 24 | 251 06 |
| Albert W. Curtis, Spencer, | - | 129 48 | 506 76 | 15 20 | - | - | 313 00 | - | - | - | 918 70 | 220 97 |
| John W. Tyler, Warren, | - | 321 94 | 221 06 | 6 70 | - | - | 111 20 | - | - | - | 219 09 | 136 84 |
| Horace W. Bush, West Brookfield, | - | 7 50 | 61 91 | 33 20 | - | - | 328 85 | - | - | 90 | 734 74 | - |
| Frank B. Spalter, Winchendon, | - | 188 00 | 59 79 | 147 20 | - | - | - | - | - | - | - | - |
| | \$98 77 | \$6,137 27 | \$5,301 24 | \$2,193 47 | \$212 31 | \$2,224 24 | \$13,462 64 | \$34 39 | \$332 80 | \$1,427 33 | \$33,558 20 | - |

TABLE No. 7. — Returns of Sheriffs for the Year ending Dec. 31, 1893.
RECEIPTS.

| SHERIFF. | County. | From Defendants. Fines and Costs. | From Defendants. Forfeitures. | From County Treasurer. Salary. | From County Treasurer. | Other Moneys. | Balance Jan. 1, 1893. | Total Receipts. |
|------------------------|-----------------|--|-------------------------------------|---|------------------------------|------------------|--------------------------|--------------------|
| Joseph Whitcomb, | Barnstable, . . | \$9 00 | - | \$500 00 | \$50 00 | - | - | \$559 00 |
| John Crosby, | Berkshire, . . | 608 36 | - | 1,600 00 | 100 00 | - | - | 2,308 36 |
| Andrew R. Wright, | Bristol, . . | 2,565 16 | \$175 00 | 1,500 00 | 22 00 | - | - | 4,262 16 |
| Jason L. Dexter, | Dukes County, . | 60 00 | - | 325 00 | - | \$334 48 | - | 719 48 |
| Samuel A. Johnson, | Essex, . . | 3,981 60 | - | 1,311 32 | - | 1 00 | - | 5,693 92 |
| Isaac Cheney, | Franklin, . . | 163 13 | - | 800 00 | - | - | - | 963 12 |
| Embury P. Clark, | Hampden, . . | 1,265 05 | 3,664 14 | 1,487 91 | - | - | - | 6,447 10 |
| Jairus E. Clark, | Hampshire, . . | 1,888 66 | - | 1,000 00 | 227 58 | - | - | 3,116 24 |
| Henry G. Cushing, | Middlesex, . . | 6,331 93 | - | 2,500 00 | 150 00 | - | - | 8,981 93 |
| Josiah F. Barrett, | Nantucket, . . | 11 00 | - | 300 00 | 72 71 | 26 26 | - | 409 97 |
| Augustus B. Endicott, | Norfolk, . . | 1,493 88 | 300 00 | 1,200 00 | 2,699 17 | 55 40 | - | 5,748 45 |
| Alpheus K. Harmon, | Plymouth, . . | 717 06 | - | 900 00 | - | - | - | 1,617 06 |
| John B. O'Brien, | Suffolk, . . | 20,674 99 | - | 3,000 00 | 25 00 | 61 66 | - | 23,761 64 |
| Robert H. Chamberlain, | Worcester, . . | 5,566 46 | 3 41 | 2,472 65 | - | - | - | 8,042 51 |
| | | \$46,286 26 | \$4,173 56 | \$19,396 86 | \$3,346 46 | \$478 70 | - | \$73,630 94 |

TABLE No. 7. — *Returns of Sheriffs for the Year ending Dec. 31, 1893* — Concluded.

EXPENDITURES.

| SHERIFF. | County. | Paid County Treasurer. | Paid Officers. | Paid Other Persons. | Retained. | Retained for Salary. | Balance on Hand Dec 31, 1893. | Total Expendi- tures. |
|----------------------------------|-----------------|------------------------------|-------------------|---------------------------|-----------|-------------------------|-------------------------------------|-----------------------------|
| Joseph Whitcomb, | Barnstable, . . | \$9 00 | - | - | \$50 00 | \$500 00 | - | \$550 00 |
| John Crosby, | Berkshire, . . | 608 36 | - | - | 100 00 | 1,000 00 | - | 2,308 36 |
| Andrew B. Wright, | Bristol, . . | 2,665 16 | - | - | 92 00 | 1,500 00 | \$75 00 | 4,232 16 |
| Jason L. Dexter, | Dukes County, . | 60 00 | - | - | 334 43 | 325 00 | - | 719 43 |
| Samuel A. Johnson, | Essex, . . | 3,862 60 | - | \$20 00 | - | 1,811 32 | - | 5,693 92 |
| Isaac Chenery, | Franklin, . . | 163 12 | - | - | - | 800 00 | - | 963 12 |
| Embury P. Clark, | Hampden, . . | 4,959 19 | - | - | - | 1,487 91 | - | 6,447 10 |
| Jairus E. Clark, | Hampshire, . . | 1,888 66 | - | - | - | 1,000 00 | - | 3,116 34 |
| Henry G. Cushing, | Middlesex, . . | 6,831 93 | - | - | 150 00 | 2,500 00 | - | 8,981 93 |
| Josiah F. Barrett, | Nantucket, . . | 11 00 | - | 75 91 | 23 06 | 300 00 | - | 409 97 |
| Augustus B. Endicott, | Norfolk, . . | 1,849 28 | \$2,295 30 | 403 87 | - | 1,200 00 | - | 5,748 45 |
| Alpheus K. Harmon, | Plymouth, . . | 717 06 | - | - | - | 900 00 | - | 1,617 06 |
| John B. O'Brien, | Suffolk, . . | 20,731 64 | - | 30 00 | - | 3,000 00 | - | 23,761 64 |
| Robert H. Chamberlain, | Worcester, . . | 5,569 86 | - | - | - | 2,472 66 | - | 8,042 51 |
| | | \$49,426 86 | \$2,295 30 | \$757 36 | \$679 54 | \$19,386 88 | \$75 00 | \$72,630 94 |

TABLE No. 8. — *Returns of Keepers of Jails and Masters of Houses of Correction for the Year ending Dec. 31, 1893.*

RECEIPTS.

| KEEPER OR MASTER. | From Defend- ants. Fines and Costs. | For Board of Prisoners. | For Labor of Prisoners. | Sales of Materials, etc. | Salary from County Treasurer. | From County Treasurer. | Other Moneys. | Balance Jan. 1, 1893. | Total Receipts. |
|--|---|-------------------------------|-------------------------------|-----------------------------|-------------------------------------|------------------------------|------------------|--------------------------|--------------------|
| Simeon F. Letteney, Barnstable, . . . | \$108 72 | \$295 89 | \$23 50 | \$45 43 | \$350 00 | - | - | - | \$823 54 |
| John Crosby, Pittsfield, . . . | 339 29 | 50 | 1,340 73 | 21 92 | 1,000 00 | - | - | - | 2,702 44 |
| Andrew R. Wright, Taunton, . . . | 702 86 | 99 25 | 189 41 | 72 00 | 800 00 | \$214 90 | - | \$209 73 | 2,288 15 |
| Josiah A. Hunt, New Bedford, . . . | 3,218 82 | 1 00 | 21,957 92 | 297 62 | 1,200 00 | 657 93 | \$49 80 | 2,132 37 | 29,515 46 |
| Hiram Crowell, Edgartown, . . . | - | 48 50 | - | - | 200 00 | - | - | - | 248 50 |
| Charles W. Morrill, Ipswich, . . . | 488 00 | - | 5,249 15 | 572 88 | 1,200 00 | - | - | 1,164 54 | 8,654 47 |
| Horatio G. Herrick, Lawrence, . . . | 1,198 00 | 394 68 | 4,655 93 | 88 48 | 1,191 63 | - | - | 1,228 75 | 8,727 47 |
| Charles L. Ayers, Newburyport, . . . | 458 90 | - | - | - | 900 00 | - | - | - | 1,358 90 |
| Samuel R. Hathaway, Salem, . . . | 1,331 26 | 77 85 | 3,567 49 | 178 79 | 1,200 00 | - | 638 00 | 1,129 06 | 8,072 45 |
| Charles S. Richardson, Greenfield, . . . | 1,325 00 | 183 90 | 824 95 | 254 00 | 700 00 | - | 70 00 | - | 2,157 85 |
| Embury P. Clark, Springfield, . . . | 1,415 00 | - | 4,024 90 | 181 48 | 991 94 | - | 90 00 | - | 6,703 32 |
| Jairus E. Clark, Northampton, . . . | 405 04 | - | 1,517 15 | 280 14 | 1,000 00 | - | 208 00 | - | 3,410 33 |
| Henry G. Cushing, Lowell, . . . | 1,208 00 | 50 | 2,072 25 | 59 39 | 1,000 00 | - | - | - | 4,340 15 |
| John M. Fisk, Cambridge, . . . | 5,771 00 | 571 10 | 32,708 50 | 1,921 36 | 2,400 00 | - | 4,500 00 | - | 47,971 96 |
| Fred. F. Parker, Nantucket, . . . | - | 16 51 | - | - | 50 00 | 13 98 | - | - | 80 49 |
| Aug. B. Endicott, Dedham, . . . | 1,120 10 | 47 65 | 2,033 02 | 71 84 | 1,000 00 | - | 125 00 | - | 4,409 54 |
| Alpheus K. Harmon, Plymouth, . . . | 668 52 | - | - | - | 750 00 | - | - | 45 00 | 1,463 52 |
| John B. O'Brien, Boston, . . . | 4,856 64 | 1,034 60 | - | 96 41 | 1,000 00 | - | - | - | 7,192 40 |
| B. D. Dwinell, Fitchburg, . . . | 1,046 00 | 143 10 | 4,432 71 | 1,182 16 | 1,400 00 | - | 204 75 | 382 24 | 8,586 21 |
| Robert H. Chamberlain, Worcester, . . . | 4,115 54 | 94 05 | 3,479 01 | 124 83 | 1,003 96 | - | - | - | 8,817 39 |
| | \$28,536 69 | \$2,979 11 | \$88,079 63 | \$5,448 73 | \$19,347 53 | \$884 81 | \$5,835 55 | \$6,291 69 | \$157,494 74 |

TABLE No. 8. — *Returns of Keepers of Jails and Masters of Houses of Correction for the Year ending Dec. 31, 1893* —
Concluded.

EXPENDITURES.

| KEEPER OR MASTER. | Paid County Treasurer. | Paid for Materials and Supplies. Sun- dry Persons. | Incidental Expenses. | Retained for Salary. | Paid City or Town Treasurers. | Balance on Hand Dec. 31, 1893. | Total Expenditures. |
|--|------------------------------|---|-------------------------|-------------------------|-------------------------------------|--------------------------------------|------------------------|
| Simeon F. Letteney, Barnstable, | \$364 82 | - | - | \$350 00 | \$108 72 | - | \$623 54 |
| John Crosby, Pittsfield, | 1,584 44 | - | - | 1,000 00 | 118 00 | - | 2,702 44 |
| Andrew R. Wright, Taunton, | 545 94 | \$49 85 | \$165 05 | 800 00 | 355 98 | \$371 33 | 2,288 15 |
| Josiah A. Hunt, New Bedford, | 24,136 93 | - | 717 73 | 1,200 00 | 1,877 38 | 1,583 42 | 29,515 46 |
| Hiram Crowell, Edgartown, | - | - | 48 50 | 200 00 | - | - | 248 50 |
| Charles W. Morrill, Ipswich, | 5,417 58 | - | - | 1,200 00 | 243 00 | 1,763 99 | 8,624 57 |
| Horatio G. Herrick, Lawrence, | 6,432 86 | - | 60 00 | 1,191 63 | 466 00 | 577 95 | 8,727 47 |
| Charles L. Ayers, Newburyport, | 175 00 | - | - | 900 00 | 283 90 | - | 1,358 90 |
| Samuel R. Hathaway, Salem, | 5,088 91 | - | 60 00 | 1,200 00 | 545 26 | 1,178 28 | 8,072 45 |
| Charles S. Richardson, Greenfield, | 1,378 96 | - | - | 700 00 | - | 78 89 | 2,157 85 |
| Embury P. Clark, Springfield, | 4,298 18 | - | 36 32 | 991 94 | 1,376 88 | - | 6,708 32 |
| Jairus E. Clark, Northampton, | 2,005 29 | - | - | 1,000 00 | 405 04 | - | 3,410 33 |
| Henry G. Cushing, Lowell, | 2,332 15 | - | - | 1,000 00 | 1,008 00 | - | 4,340 15 |
| John M. Fisk, Cambridge, | 41,901 96 | - | 187 50 | 2,500 00 | 3,482 50 | - | 47,971 96 |
| Fred. F. Parker, Nantucket, | - | - | 30 49 | 50 00 | - | - | 80 49 |
| Aug. B. Endicott, Dedham, | 3,409 64 | - | - | 1,000 00 | - | - | 4,409 64 |
| Alpheus K. Harmon, Plymouth, | 278 00 | - | - | 750 00 | 435 52 | - | 1,463 52 |
| John B. O'Brien, Boston, | 6,031 40 | - | 141 00* | 1,000 00 | - | - | 7,172 40 |
| B. D. Dwinell, Fitchburg, | 7,156 21 | - | - | 1,400 00 | - | - | 8,556 21 |
| Robert H. Chamberlain, Worcester, | 5,830 43 | - | 20 00 | 1,003 95 | 1,963 00 | - | 8,817 39 |
| | \$118,318 75 | \$49 85 | \$1,466 59 | \$19,437 53 | \$12,668 15 | \$5,553 85 | \$157,494 74 |

* Paid to complainants by order of court.

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ANNUAL REPORT

OF THE

BOARD OF HARBOR AND LAND COMMISSIONERS

FOR THE YEAR 1893.

BOSTON :
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

Commonwealth of Massachusetts.

To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts :

The Board of Harbor and Land Commissioners, as required by the provisions of section 2 of chapter 19 of the Public Statutes, respectfully submit the following report of their doings in the year 1893.

The Legislature have required, by chapter 144 of the Acts of 1893, that annual reports of State boards or commissions containing recommendations or suggestions for legislative action shall be deposited with the Secretary of the Commonwealth on or before the first Wednesday in January of each year. In order to comply with this provision of law it has been necessary for this Board to end the period covered by the present report with the 30th of November instead of the 31st day of December, as in previous years. This report, therefore, covers a period of only eleven months, but hereafter the annual reports will cover a full year beginning from the 1st of December.

HEARINGS AND INSPECTIONS.

During the eleven months of 1893 ending November 30, the Board have held one hundred and five formal sessions. At these meetings one hundred and forty-three hearings were given. The Board have passed upon ninety-five applications for licenses for structures or privileges in tide waters and great ponds ; of these ninety were granted, one was withdrawn by the petitioners after hearing, and four were refused. In the licenses granted suitable conditions and restrictions were imposed.

Of the above-named meetings, one in regard to the establishment of a river line at Springfield was held at that city, two in regard to the boundary line on tide water between

the towns of Mashpee and Barnstable were held at Cotuit in the town of Barnstable and one was held at Harwich in regard to certain structures in that town; the other hearings were held at the office of the Board in Boston.

The Commissioners have from time to time visited the localities where they have been asked to license structures in tide waters, or to grant privileges for using or lowering waters of great ponds. In this way the Board have during the year visited and inspected the bridge at Muddy Cove between the towns of Chatham and Harwich, the jetties at the mouth of Herring River, in the last-named town, a wharf or landing in the harbor of Marblehead, a wharf on Mystic River at Medford, certain wharves in Fall River, Vincent Cove at Gloucester, the draw in the railroad bridge at Manchester, Bartlett's and Darby ponds in Plymouth, and certain structures in Lake Quinsigamond at Worcester. The Commissioners also visited and inspected the Province Lands, now subject to their jurisdiction. The inspections named were those made by the Board, but no license is ever granted without an actual inspection of the premises, either by the Board or one of its members, or by its engineers.

SOUTH BOSTON FLATS.

The work of filling and improving the tidewater lands known as the Commonwealth's Flats, at South Boston, has continued during the year on the general plan previously followed. Substantially all the work done during the year has been upon the portion of the lands known as the seventy-five-acre lot.

The final settlement has been made with the New England Dredging Company for the work done under the contract dated April 8, 1889. In making this settlement \$7,500 was paid to the said company for additional material required to complete the filling by reason of the sinking of the original surface, the soft mud underlying the filling being here much deeper than at any place previously filled.

The contract with the San Francisco Bridge Company for dredging and filling a portion of the seventy-five-acre lot, dated Dec. 31, 1891, was completed and the final payment made in October, 1893. During the year 179,821 cubic

yards of material were dredged and deposited, most of it on the area north of Congress Street, and a small quantity on the land south of Congress Street in order to fill some low places to the required level. This work was done by the hydraulic method and in a very satisfactory manner. The completion of the work was delayed about three months beyond the contract time owing to the existence of a large number of small boulders in the material dredged, which broke the pumps very frequently and delayed the work. The presence of these boulders was not known or suspected either by the commissioners or the contractors when the contract was made. In the final settlement under the contract the San Francisco Bridge Company was paid \$609.40 for expenses incurred in the removal of these boulders.

The work under the contract with the Eastern Dredging Company for filling about 200,000 cubic yards at the northeast corner of the seventy-five-acre lot dated July 1, 1892, and extended to January 1, 1894, is now in progress. During the year 74,962 cubic yards of material have been deposited under this contract.

This work is being done by a combination process. The material is brought to the work in scows and then dug from the scows by a clam-shell dredge, and placed in a hopper on the wharf. It is then forced by water from steam pumps through a pipe to the place of deposit. This method deposits the material in such a manner that very little work is required to complete the grading of the surface.

On June 13, 1893, after public advertisement, a contract was made with Perkins & White, the lowest bidders, to fill with gravel to grade 16 D and E Streets and the cross streets between C and E Streets, at the price of 63 cents per cubic yard. [See Appendix A.] Work has been commenced under this contract, and up to Dec. 1, 1893, 7,000 cubic yards of gravel have been deposited on the streets, most of it on E Street.

On Aug. 1, 1893, a lease for 5 years was made to George C. Corcoran of 15,000 square feet of land on the southeast corner of Congress and C Streets, he agreeing to purchase the land at the expiration of the lease at the price of 80 cents per square foot, and agreeing to at once erect a large building

on the premises. This building has been built, and he is now carrying on his business there.

Early in the year Mr. Peter McConarty notified the Board that the city board of health had ordered him to discontinue the business of storing manure on the premises he had leased from the Commonwealth. Accordingly this lease was terminated by mutual agreement. Later in the year the Board was informed that the board of health had withdrawn its objections to the business carried on by Mr. McConarty, and on Oct. 10, 1893, a lot in the same location, 50 feet square, was let to him at the rent of \$60 per year, payable semi-annually in advance.

The two small lots on the northerly side of the one-hundred-acre lot are still let as stated in the last report of the Board.

During the year, the Walworth Manufacturing Company has graded its lot and enclosed it by a substantial fence, and, in addition to its large storage shed, has erected a building for the storage of naphtha.

In November the city of Boston applied for permission to build a plank sidewalk on the southerly side of Congress Street, from C Street to L Street Bridge, and such permission was granted by the Board on Nov. 10, 1893. The walk is now in process of construction.

The L Street Bridge, which was completed last December, has remained unused since that time. During the summer L Street was completed on the South Boston side from First Street to the Bridge, the roadway being paved and the edge-stones set; but no work has been done on the Boston side with the exception of the plank walk above described.

Up to the present time the New York & New England Railroad Company has successfully delayed the appointment, upon the petition of the city of Boston, of a commission, under the grade crossing act, to compel the carrying of Congress Street over the tracks of said railroad company. This has prevented the completion of Congress Street and correspondingly retarded the development of the Commonwealth's property at the South Boston flats. The importance of opening Congress Street to travel is so clear, that the city authorities can probably be relied upon to press the matter as much

as possible. In the meantime the erection of the plank walk for foot passengers is likely to call attention to the uncompleted thoroughfare.

Under the contract with the San Francisco Bridge Company, the reserved channel has been excavated to its full width of 400 feet from its head at E Street to a line 100 feet east of the easterly line of L Street and to its full depth of 12 feet below mean low water. From this point the excavated channel continues in the same direction 110 feet wide on the bottom and 12 feet deep at mean low water to a point opposite George Lawley & Sons' yacht basin; at that point it turns and runs about northeasterly 115 feet wide on the bottom and 8 feet deep at mean low water to a like depth in the main channel of the harbor.

In the spring the buoys marking this channel were renewed and set at the entrance and at the angles in the channel.

The balance in the Commonwealth's Flats improvement fund on the first day of January, 1893, available for carrying on the work was \$69,698.93. To this has been added during the year \$937.82 from the income of the fund, \$2,259.94 from rents of land and \$95,000 paid into the fund from the treasury of the Commonwealth under the provisions of chapter 93 of the Acts of 1889, and chapter 19 of the Acts of 1893, making a total of \$167,896.69. Of this sum there has been expended during the year \$88,947.23, leaving an available balance on December 1, 1893, of \$78,949.46.

It is estimated that this balance will be sufficient to pay for all the work now contracted for and also the expenses incidental to its completion. In order to provide for the remainder of the filling required to raise to the established grade the whole of the area enclosed by the present sea-wall and bulkheads, it is estimated that it will be necessary to authorize the payment of \$50,000 into the fund for the year 1894.

SURVEYS.

During the year the work on the South Boston Flats has as usual occupied a large part of the time of the engineer of the Board and his assistants. The surveys in connection with the contracts for filling have taken much time, and

the large amount of filling brought by teams has required constant attention.

Two surveys were made of the portion of the Reserved Channel dredged by the San Francisco Bridge Company, one in April, on which to base the instructions as to the final levelling of the excavation, and the other in August and September, upon the completion of the work. The bottom was found to be remarkably smooth and of even depth at the required grade.

April 28, 1893, an examination and sketch were made of the wharf of William H. Friend and the launching ways of Thomas A. Irving, in Vincent Cove, Gloucester.

May 9, 1893, a line of levels was run from Bartlett's Pond, in Plymouth, to the outlet of the mill-pond on the stream above Bartlett's Pond, to determine the comparative elevations between the floor of the outlet of the mill-pond and the natural level of Bartlett's Pond, and on October 12 copper bolts were set in rocks near the shore of Bartlett's Pond marking the level below which the pond should not be drawn under a proposed license of this Board to the Beaver Dam Cranberry Bog Company to erect structures in the outlet of the pond.

May 9, 1893, levels were taken at Darby Pond, in Plymouth, to determine the level below which the pond should not be drawn in flowing cranberry bogs.

June 8, 1893, levels were taken on Salter's Beach, near the Gurnet, in Plymouth, to compare with previous levels to see how the beach is affected, if at all, by the removal of gravel under permits given to the owner of the beach. So far as appears at present, the removal of the gravel from the proper places and in a proper manner does not injure the beach.

In June, July and August, a survey and plan were made of Popponesset Bay, in Mashpee and Barnstable, to be used in defining the boundary line on tide water between the two towns under chapter 105 of the Resolves of 1893. This took considerable time, the field work alone occupying nearly three weeks.

In July and in September and October surveys were made at Provincetown for the purpose of fixing and marking the

bounds of the Province Lands as established by chapter 470 of the Acts of 1893. Fifteen stone monuments, of substantial size and properly inscribed, were set in the places designated upon the map accompanying this report.

During the summer, between other engineering work, a hydrographic survey was made of Chelsea Creek from Meridian Street bridge to the head of navigation near Proctor's wharf in Revere. The plans of this survey are not yet completed.

October 25 and 26, a few lines of soundings were run in Neponset River to ascertain whether any changes had occurred since the survey of 1891, before making estimates of the amount of dredging required to make the channel navigable to vessels of deeper draught than those that use it now.

In November a hydrographic survey was made around Jeffries Point, East Boston, on which to base estimates for a channel from the present Bird Island channel to the wharves on the northerly side of the point as far as the Boston, Revere Beach & Lynn Railroad.

In the same month, a survey was made of the channel in South Bay, from Dover Street bridge up Roxbury Canal, on which to base estimates for the removal of certain shoals which now prevent the larger vessels from reaching the wharves.

In September surveys were made to determine the amount of filling which had been done by certain persons and corporations in South Bay, along the shore between Roxbury Canal and the New York & New England Railroad, and also in Charles River, in Cambridge between West Boston and Craigie bridges.

CHARLES RIVER.

License to Boston & Maine Railroad.

On Jan. 25, 1893, the Board granted to the Boston & Maine Railroad a very important license, authorizing it to widen a portion of its Eastern and Western Division bridges over the Charles River so as to cover the space between them with a pile structure, also to widen the passage-way for vessels in the draws of its Eastern and Southern Division bridges and to build additions to the draw-piers of those bridges,

and to repair a portion of said Eastern and Southern Division bridges and the draw-pier of said Southern Division bridge. The draw-ways covered by this license were required to have a width for the passage of vessels of 40 feet instead of 36 as before. Both in the new construction and in the repairs and rebuilding authorized the railroad company was required by the Board to place the piles in lines parallel to the current, and to remove the old piles, which were placed so as to obstruct the current and greatly to retard the flow of the river. There can be no doubt that the performance of these requirements has benefited the river, and it is thought that, with all the new piling which was authorized by the license to be placed between the bridges, the river flows more freely at this point than it did before any of the authorized changes were made.

The portion of the license, however, which authorized the widening of the two bridges so as to cover the space between them with a pile structure, was granted upon the solemn declaration of the Boston & Maine Railroad, made by the persons authorized to represent it, that it desired the license only for the purpose of erecting a temporary structure to provide for the immediate necessities of its passenger traffic until the problem of a union station and proper terminal facilities could be finally solved; and the following agreement was inserted in the license with the assent of the railroad company: —

This license is granted with the express understanding that the pile construction hereby authorized is temporary in its character, and the said Boston & Maine Railroad in accepting this license agrees with the Commonwealth of Massachusetts and with the Board of Harbor and Land Commissioners, representing said Commonwealth, that it will, as soon as the same can permanently and advantageously be done, rebuild with stone piers, in a manner to be approved by the said Board, all the bridges over the Charles River owned, leased or controlled by it, and will remove from the said river all the piles supporting any of the said bridges or hereby authorized to be driven, except such piles as may be allowed by the said Board to remain as necessary for the proper appurtenances of the said bridges or the draws therein.

Instead of building a structure providing only for the

temporary accommodation of its passenger business, the Boston & Maine Railroad, after making an agreement with the Fitchburg Railroad for a union station, proceeded to build the same at great expense and in a very substantial manner. This proceeding in no way discharges the corporation from its obligation to the Commonwealth under the contract contained in the license, although it may make the performance of that contract by the removal of the piles and the rebuilding of its bridges with stone piers more costly than it otherwise would have been. The fact that the corporation has chosen to make a large expenditure on a temporary structure, should not at any future time be allowed to furnish it with an excuse for attempting to delay the performance of its contract with the Commonwealth.

Under this license the Boston & Maine Railroad, in accordance with the recommendation of this Board to the Governor and Council, paid the Commonwealth for rights and privileges granted in tide-water lands the sum of \$75,636. This was paid on Feb. 6, 1893.

After obtaining the said license from this Board the Boston & Maine Railroad, as required by the laws of the United States, applied to the Secretary of War for approval thereof. Such approval was granted by the Secretary of War on Feb. 3, 1893, in accordance with the recommendation of Lieutenant Colonel Mansfield. In granting the said approval the Secretary of War imposed the following condition : —

That the Boston & Maine Railroad shall rebuild all its bridges over the Charles River on stone or iron piers in a manner to be approved by the War Department, and shall remove from the river all of the piles of the said bridges within ten years from the date of execution hereof.

The written instrument signed by the Secretary of War, certifying his assent and containing the foregoing condition, bears upon it the following acceptance in behalf of the Railroad Company : —

The conditions of this instrument are hereby accepted by the Boston & Maine Railroad, by Frank Jones, the chairman of the

board, thereunto lawfully authorized, this sixth day of February, 1893.

FRANK JONES.

In presence of

A. W. SULLOWAY.

J. W. SANBORN.

Work of Charles River Embankment Company.

Owing to the financial depression, the work in Charles River Basin has not progressed during the year as fast as was expected. The work on the property of the Charles River Embankment Company has been principally done east of Harvard Bridge, where about 1,470 feet of sea-wall have been built from Harvard Bridge along the exterior line towards West Boston Bridge. About 2,000 feet of wooden bulk-head have been built on the boundary between the flats being filled and the adjacent flats. About 127,000 cubic yards of material have been deposited on the flats inclosed, a large portion of which was used in backing up the wall and bulk-head.

West of the Harvard Bridge about 77,000 cubic yards of material have been dredged from the river and deposited on the westerly and northern sides of the area already inclosed and partially filled. The general appearance of the territory west of the bridge is about the same as a year ago, the material deposited this year being used to raise the portions which were a little low. No work was done in constructing streets during the past year.

Other Work.

On the property between Broad Canal and Binney Street, the filling has been continued on both sides of First Street, and the erection of buildings upon the filled land has already begun.

Authorized Extension of the Charles River Embankment by the City of Boston.

By chapter 435 of the Acts of 1893, the act of 1891,

which authorized the city of Boston to extend the Charles River Embankment or Charlesbank to the southerly line of Mount Vernon Street and thence by a curved line southerly and westerly as this Board might approve, was amended by authorizing the continuation of such embankment by the construction of a sea-wall, parallel to and 100 feet or less distant from the sea-wall in the rear of Beacon Street, as far as the westerly line of the Back Bay Fens.

The act provides that all lands acquired and filled under authority of the act shall be subject to the express condition that they shall not be used for building purposes, or for any other purpose than for public ornamental grounds and a parkway. The third section makes proper provision for obtaining the material used for filling by dredging from the Charles River Basin in such places and to such depths as this Board shall require, and also provides that the city shall do a sufficient amount of additional dredging between high and low water lines to compensate for the amount of tide-water displaced by the filling or do other dredging in lieu thereof which in the judgment of this Board is an equal improvement to the harbor of Boston. The act provides that all the filling, dredging and other work authorized or required thereby shall be subject to the approval of this Board and likewise subject to the approval of the Secretary of War.

Claim of the Fisk Heirs.

Mary G. Fisk and Edward P. Fisk, trustee, have presented a claim to this Board based upon their alleged ownership of certain flats in Charles River south of the West Boston Bridge. They claim that the 100-rod line of riparian ownership, as measured from the shore line indicated on a certain ancient plan, entitles them to a portion of the flats which have hitherto been claimed by the Commonwealth, and that they should be paid certain sums of money which the Commonwealth has received for gravel sold from the flats claimed by them. The Board have this matter under consideration, and hope to find further ancient plans or descriptions which may throw light upon the questions involved.

MYSTIC RIVER.

The work done by the Boston & Maine Railroad during the year in connection with the Mystic Wharf improvement has consisted mainly in dredging in the dock and opposite the lower portion of the railroad company's said wharf and principally below Chelsea Bridge, to secure a depth of water sufficient to allow large ocean steamships to reach the wharf. As the wharf was already filled, the dredged material was used partly in filling the South Boston Flats under a contract of the Eastern Dredging Company with the Commonwealth and the remainder was carried out to sea. Eighty-five thousand three hundred and thirty-six cubic yards of material have been so dredged. All of this material was dredged from the north channel of the Mystic River, 17,480 cubic yards having been dredged above the Chelsea Bridge and 67,856 cubic yards below that bridge.

FORT POINT CHANNEL.

Dover Street Bridge.

On July 26, 1893, this Board granted to the city of Boston a license to rebuild a portion of Dover Street Bridge in and over the tidewaters of the Fort Point Channel, as directed by a special commission appointed under the provisions of the grade-crossing act. The Board in granting this license imposed the condition that the draw-way in said bridge should be built with an opening of not less than 40 feet at all stages of the tide for the passage of vessels, but it was further provided that until the draw-way in the bridge of the Old Colony Railroad Company over Fort Point Channel shall be rebuilt and widened, the city may maintain its water pipes temporarily in their present position on the Dover Street Bridge and draw-way, with such structures as are necessary for their support and protection, leaving a clear opening of 36 feet in the draw-way, such water pipes and temporary structures to be removed or changed by the city so as to leave a clear opening of 40 feet in the draw-way whenever such removal or change shall be ordered by the Board after hearing. The Old Colony Railroad bridge is below the Dover Street Bridge, so that the additional width in the

passageway in the Dover Street Bridge draw will be useless until the draw-way in the bridge of the Old Colony Railroad Company is correspondingly widened. Such a change is very desirable and it is hoped that the Board may be able to find some way to bring it about.

FLATS AT EAST BOSTON.

The East Boston Company and the Maverick Land Company own certain flats at East Boston which were enclosed by a sea-wall before the year 1866. These companies applied to the Board for information as to whether it was their duty to procure licenses from the Board before permitting dredged material to be dumped on their flats or making contracts for filling them. They claimed that the work of filling the portion of their flats enclosed by the sea-wall was begun at the time of the passage of the act of 1866 creating the Board of Harbor Commissioners and requiring licenses for structures in tide-water, and that the work has since been continuously prosecuted. The flats and the wall in question are those which are seen upon the right in passing between East Boston and Winthrop upon the trains of the Boston, Revere Beach & Lynn Railroad Company.

The East Boston and Maverick companies, at the request of the Board, furnished the Board with a statement of their grounds for claiming such exemption, and this statement was submitted by the Board to the Attorney-General for his opinion, particularly asking his attention to the consideration of the point whether, if the said work was begun at the time of the passage of the act of 1866, under the construction of that statute laid down by the Supreme Court in the case of *Attorney-General v. Boston & Lowell Railroad*, 118 Mass. 345, it has been since continuously prosecuted, so that a filling of the flats now can fairly be considered a part of the same work, or whether the prosecution of the old work has been so discontinued since 1866 that the present undertaking of filling the flats in question would be a new work, and would thus require a license from the Board under the provisions of chapter 19 of the Public Statutes.

In response to this inquiry the Attorney-General gave his

opinion upon the 15th of July, 1893, to the effect that, assuming the statements of fact submitted to him to be correct, the work of improving the flats in question enclosed by the wall is within the exemption of section 8 of chapter 19 of the Public Statutes. A copy of the opinion of the Attorney-General is printed in the appendix to this report. [See Appendix B.]

The Board, after receiving this opinion, notified the East Boston and Maverick companies that no licenses would be required to authorize them to fill the portions of their property enclosed by the sea-wall.

CONNECTICUT RIVER.

On April 12, 1893, the Board gave a hearing at Springfield in regard to the northerly and southerly extension of the river line on the Connecticut River already designated by the Board, as stated on page 6 of the report of the Board for the year 1892. A plan made by the city engineer of Springfield and the engineer of this Board showing the extensions of the line to be recommended was considered, and it was voted to recommend to the Legislature that the line with the extensions shown on said plan be established. This recommendation was accordingly made, and the Legislature established the line in question by chapter 301 of the Acts of 1893.

BACK BAY LANDS.

The Board have received during the year several complaints in regard to alleged violations of restrictions in the deeds of the Commonwealth conveying lots on the Back Bay lands; but in most of the cases notice of the complaint has resulted in the removal of the features principally objected to, and no action on the part of the Board has become necessary. Two of these complaints are now pending, but neither of them has reached a point where the Board can properly make a report upon it.

On November 14, 1893, the Board approved a change in the plan for laying out a portion of the lands of the Boston & Roxbury Mill Corporation between Beacon Street, Deerfield Street and the Bay State road.

REMOVAL OF WRECKS AND OBSTRUCTIONS TO NAVIGATION.

Early in the spring, complaint was made to the Board that an old hulk had been floated away from its berth and was liable to damage a brig moored at Burnham's railway wharf at East Boston. Upon investigation it was found that so much ice had formed on the wreck that it had floated, and drifted into its dangerous position. As no owner could be found, the Board had it towed to South Boston Flats to be finally disposed of later.

On March 30, 1893, Mr. A. T. Bliss of Winthrop notified the Board that an old wreck was lying off his premises at Chelsea Point, in Winthrop, which was an obstruction to navigation, and asked for its removal. Upon investigation it was found to be the bottom of the old ferry-boat "Trimountain," which after the breaking up of the boat had been left on Wood Island during the winter. The ice had formed on it until it had floated and lodged in the position reported by Mr. Bliss.

May 1, 1893, after public advertisement, a contract was made with Mr. Wendal H. Wyman, the lowest bidder, for the sum of \$467, to break up and place on shore, the two above-described wrecks, and also the wreck of an old sloop which was lying near the head of the Reserved Channel on the South Boston Flats. [See Appendix C.] The performance of this contract was satisfactorily completed June 6, 1893.

On July 29, 1893, the Harbor-master notified the Board that the schooner "Mt. Vernon" had been stripped of most of her rigging and abandoned and was drifting around in the South Bay; that she was an obstruction to navigation and was liable to do serious damage to the wharves and bridge. The Board had her towed to the South Boston Flats and made fast to the wharf there, and notified the owner to remove her. No reply was received from him, and in the mean time the vessel sank at the wharf. The Board then received bids for her removal, which were so high that they were all rejected. Oct. 24, 1893, an offer was accepted from Mr. J. R. Nash to remove the wreck for the sum of \$25 and the vessel. The work was satisfactorily completed, and paid for on Oct. 31, 1893.

Oct. 20, 1893, Mr. E. B. Townsend reported to the Board that the schooner "D. M. Anthony," while passing up Miller's River, on Oct. 16, 1893, grounded on an obstruction near Prison Point Bridge and damaged her rudder. Upon investigation, the obstruction was found to be an old oak spur-shore pile projecting from the bed of the river, lying directly in the track of vessels at a place where they are in the habit of stopping to wait for the tide. No information could be obtained as to how the pile got there. A diver was employed and the pile removed, at an expense of \$25, the payment of which was approved by the Board on Oct. 24, 1893.

Oct. 27, 1892, the Boston Rubber Company notified the Board that a wreck had floated alongside their wharf at Chelsea, and was liable to injure it. Upon inquiry it was found to be the sloop "Ino" of Boston, which had been dismantled and had drifted away from her berth. The owners were notified and removed her.

Attempt to Procure Reimbursement from the United States.

In their last annual report the Board stated that they had in contemplation an application to the United States for reimbursement of expenditures made by the Commonwealth for the removal of wrecks under the provisions of chapter 260 of the Acts of 1883, this being made the duty of the Board by the provisions of section 10 of the act. On Sept. 22, 1893, such an application was made in a letter addressed to the Secretary of War of the United States, setting forth a list of the expenditures made by the Commonwealth for the removal of wrecks constituting obstructions to international and interstate navigation, amounting to \$7,536.51, which, in the opinion of this Board, might properly be paid by the United States.

The Board, in their communication to the Secretary of War, stated that they presented the claim to him as being in charge of the harbors of the United States, in order that he might recommend such action to Congress in the matter as he thought proper, by way of providing for the payment of this claim as one of the items in the annual appropriation bill or otherwise.

The Secretary of War replied in a letter dated Oct. 2, 1893, declining to recommend the repayment by the United States of the amount thus expended by the Commonwealth, on the ground that Congress had exclusive control of the subject of the removal of wrecks, and had passed a law making all necessary provisions in regard to the matter.

To this letter the Board sent a reply dated Oct. 5, 1893, respectfully urging that, if the United States desires to reject the assistance of this Commonwealth in performing its duties in regard to the removal of wrecks, it should amend its laws so that these duties may be promptly and efficiently performed by its own officers; the fact being that under the provisions of section 4 of the act of Congress approved June 14, 1880, providing for the removal of wrecks, thirty days' notice by publication is required, and also a further time sufficient to allow the owner to remove the wreck after such notice, so that in practice it is found impossible for the United States authorities to begin the removal of a wreck sooner than forty days after receiving notice of the obstruction. This power is in many cases obviously insufficient, and the United States authorities have in several important instances been obliged to leave to this Board the removal of wrecks where immediate action was necessary.

The correspondence will be found printed in full in the appendix to this report. [See Appendix D.]

FISH WEIRS.

Section 70 of chapter 91 of the Public Statutes is as follows:—

The mayor and aldermen of a city and the selectmen of a town lying upon tide water may authorize in writing any person to construct fish-weirs in said waters within the limits of such city or town for a term not exceeding five years: *provided*, such weirs cause no obstruction to navigation, and do not encroach on the rights of other persons.

This section substantially re-enacts section 1 of chapter 50 of the Acts of 1856, which was passed ten years before the statute which created the Board of Harbor Commission-

ers and required structures in tide waters to be licensed by that Board.

In the report of the Board of Harbor and Land Commissioners for the year 1883 the commissioners discussed the effect of the law in regard to fish-weirs and commented upon its unsatisfactory condition, but did not definitely recommend any legislation on the subject. Since that time the matter has not been mentioned in the reports.

During the past year the attention of this Board was called to the matter by a complaint against certain persons for maintaining fish-weirs alleged to be obstructions to navigation within the meaning of the statute. In regard to the particular weirs complained of, the Board came to the conclusion that under the existing circumstances no action on their part was necessary; but in the course of the hearings upon the matter the practice of the selectmen of towns in regard to the granting of licenses for fish-weirs was disclosed in such a way as to throw a good deal of light upon the operation of the existing law. It seems that the selectmen, in at least one important town where licenses for fish-weirs are granted, do not grant definite licenses permitting the licensee to erect and maintain a fish-weir in a designated place, but merely give a general permission in writing to the licensee to erect and maintain a fish-weir, or in some cases more than one, anywhere in the waters within the limits of the town, providing that he causes no obstruction to navigation and does not encroach on the rights of other persons. This leaves it for the licensee to determine where his fish-weir shall be located, providing he gets the consent of the riparian proprietor to such portion of the structure as comes above low water mark, such licensee deciding for himself and at his own risk whether the structure that he erects and maintains is an obstruction to navigation within the meaning of the statute. The consequence is that fish-weirs, consisting of stakes firmly driven in the bottom and connected by nets or brush, are built from various portions of the shore into the tide waters of the Commonwealth under cover of written licenses from the selectmen of the town, and yet neither the selectmen nor any other authority has ever passed upon the question of whether the licensed weirs are obstructions to navigation or are erected in suitable places or in a proper manner.

Under the statutes now in force, no person can build a wharf, pier, dam, sea-wall or bridge in tide waters of the Commonwealth without a license from this Board. Fish-weirs are the only structures in tide water not required to be so licensed. They are structures peculiarly liable to interfere with navigation, and there seems to be at least as much reason for their being subject to a proper control as there is in case of the structures now under the jurisdiction of this Board.

The Board suggest that the above quoted section of the Public Statutes in regard to fish-weirs should be so amended that licenses for fish-weirs granted by the mayor and aldermen of a city or the selectmen of a town may be subject to the approval of this Board upon the question of obstruction to navigation, leaving to the local tribunal the decision of the question whether the city or town should grant any licenses for fish-weirs, and, if so, to how many persons and to what persons they should be granted, but requiring this Board to pass upon the questions whether the proposed structure is a proper one and to be put in a proper place with reference to navigation.

Chapter 205 of the Acts of 1893 prohibited the granting of any further licenses for constructing or maintaining fish-weirs in tide waters of Buzzard's Bay, or any harbor, cove or bight thereof, but as to the other tide waters of the Commonwealth section 70 of chapter 91 of the Public Statutes remains in force.

**LICENSES AUTHORIZING STRUCTURES IN OR PRIVILEGES
AFFECTING TIDE WATERS AND GREAT PONDS, GRANTED
DURING THE ELEVEN MONTHS ENDING NOVEMBER 30,
1893.**

Nos.

1531. Petition of G. H. Johnson for license to dump snow and ice from Dover Street Bridge into Fort Point Channel in the city of Boston. Granted Jan. 13, 1893.
1532. Petition of the Boston & Maine Railroad for license to widen a portion of its Eastern and Western Division Bridges, to widen the passage-way for vessels in its Eastern and Southern Division Bridges, to build additions to the draw-piers of said Eastern and Southern Division

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- Nos. Bridges, and to repair a portion of said Eastern and Southern Division Bridges and the draw-pier of said Southern Division Bridge on Charles River in the cities of Boston and Cambridge. Granted Jan. 25, 1893.
1533. Petition of the city of Boston for license to dump snow and ice into tide waters in the cities of Boston, Cambridge and Chelsea. Granted Feb. 2, 1893.
1534. Petition of the city of Lynn and town of Swampscott for license to build a wooden box outfall in Nahant Bay, at King's Beach, in said city and town. Granted Feb. 2, 1893.
1535. Petition of the Boston Fire Brick and Clay Retort Manufacturing Company for license to fill solid and extend its wharf, on piles, in Boston harbor near the Reserved channel at South Boston. Granted Feb. 2, 1893.
1536. Petition of the North Packing and Provision Company for license to widen its wharf, on piles, on Miller's River in the city of Somerville. Granted Feb. 2, 1893.
1537. Petition of Orlando E. Lewis for license to widen a wharf in Winthrop harbor in the town of Winthrop. Granted Feb. 2, 1893.
1538. Petition of Thomas A. Irving for license to build and maintain a launchway, on piles, in Vincent Cove in the city of Gloucester. Granted Feb. 2, 1893.
1539. Petition of the Eastern Dredging Company for license to build a sea-wall, bulkhead and pile pier, and to fill solid in Chelsea Creek at East Boston. Granted Feb. 2, 1893.
1540. Petition of Susan Pope and Julia A. Furber for license to repair their wharf and build a pile structure in their dock on Fort Point Channel in the city of Boston. Granted Feb. 2, 1893.
1541. Petition of Sylvester Cunningham and William Thompson for license to widen their wharf, on piles, in Gloucester harbor. Granted Feb. 2, 1893.
1542. Petition of DeWitt C. Bates, J. Clarence Howe and Henry O. Fairbanks, trustees of the bridges over Weymouth Fore and Back rivers, for license to widen a portion of a bridge, on piles, on Weymouth Fore River in the city of Quincy and town of Weymouth. Granted Feb. 2, 1893.
1543. Petition of the Central Wharf and Wet Dock Corporation for license to dump snow and ice into Boston harbor from Central wharf and India wharf in the city of Boston. Granted Feb. 9, 1893.

Nos.

1544. Petition of Heywood Brothers & Co. for license to fill solid in Crystal Lake in the town of Gardner. Granted Feb. 9, 1893.
1545. Petition of James J. Storrow, Jr., and others, trustees, for license to build a bulkhead, fill solid and maintain a float on Charles River in the city of Cambridge. Granted Feb. 16, 1893.
1546. Petition of the Boston & Maine Railroad for license to widen and repair a portion of its Eastern Division bridge, and to widen and extend the draw-pier of said bridge on the easterly side of Austin Street, on Charles and Miller's Rivers in the cities of Boston and Cambridge. Granted March 9, 1893.
1547. Petition of the city of Boston for license to build a foundation head-house, and to rebuild two ferry piers in Boston harbor, at the North Ferry in the city of Boston. Granted March 9, 1893.
1548. Petition of Reed & Gamage for license to extend their wharf, on piles, in Gloucester harbor in the city of Gloucester. Granted March 9, 1893.
1549. Petition of the Lynn & Boston Railroad Company for approval of plans for temporary bridges on Mystic River in the city of Boston, as authorized by chapter 374 of the Acts of 1892. Granted March 23, 1893.
1550. Petition of Alvin F. Waite and James T. Smith for license to build a breakwater in Buzzard's Bay in the town of Dartmouth. Granted March 23, 1893.
1551. Petition of H. K. Hannah for license to build a pile wharf on Weymouth Fore River in the town of Weymouth. Granted March 23, 1893.
1552. Petition of the Fall River Iron Works Company for license to widen and extend its wharf by filling solid in Taunton River in the city of Fall River. Granted March 23, 1893.
1553. Petition of Annie M. Oakes for license to widen and extend her wharf, on piles, on Chelsea Creek in the city of Chelsea. Granted March 30, 1893.
1554. Petition of the Board of Metropolitan Sewerage Commissioners for approval of plans for a sewer and siphon across Shirley Gut, between Point Shirley and Deer Island, as authorized by chapter 439 of the Acts of 1889. Granted April 5, 1893.
1555. Petition of the Brookline Gas Light Company for license to build a pile wharf, to widen its present wharf, and to fill

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- Nos. solid on Charles River in the city of Boston. Granted April 5, 1893.
1556. Petition of the city of Medford for license to build a brick conduit, with a tide-gate therein, to conduct the waters of Gravelly Creek into Mystic River in said city. Granted April 13, 1893.
1557. Petition of the Bristol Manufacturing Company for license to lay a 20-inch water-pipe in Acushnet River in the city of New Bedford. Granted April 13, 1893.
1558. Petition of the town of Harwich for license to build bulk-heads and fill solid a portion of Lower Herring bridge on Herring River in said town. Granted April 13, 1893.
1559. Petition of the town of Harwich for license to build jetties at the mouth of Herring River in said town. Granted April 13, 1893.
1560. Petition of the towns of Harwich and Chatham for license to repair and fill solid a portion of Cove bridge on Muddy Cove in said towns. Granted April 20, 1893.
1561. Petition of the Boston & Maine Railroad for license to build an addition to the draw-pier of its Eastern Division bridge on Charles and Miller's Rivers in the city of Boston. Granted April 26, 1893.
1562. Petition of the Boston & Maine Railroad for license to drive additional piles in its Southern Division bridge on Charles River in the city of Cambridge. Granted April 26, 1893.
1563. Petition of the New Bedford, Martha's Vineyard and Nantucket Steamboat Company for license to build a pile wharf on Vineyard Sound in the town of Cottage City. Granted April 26, 1893.
1564. Petition of Eugene Battelle for license to build a pile pier and to maintain a float-stage in Mattapoissett harbor in the town of Mattapoissett. Granted April 26, 1893.
1565. Petition of the trustees under the will of Ebenezer Francis for license to fill solid a portion of a dock adjoining Francis wharf on Fort Point Channel in the city of Boston. Granted April 26, 1893.
1566. Petition of Alfred S. Hall and William O. Hall for license to build a culvert and tide-gate on Pines River in the town of Revere. Granted April 26, 1893.
1567. Petition of George W. Burr for license to widen his wharf, partly solid and partly on piles, and to dredge a channel in Hingham harbor in the town of Hingham. Granted April 26, 1893.

Nos.

1568. Petition of the Standard Oil Company of New York for license to widen its wharf, on piles, and to dredge in Chelsea Creek at East Boston. Granted May 4, 1893.
1569. Petition of the Boston & Maine Railroad for license to widen the road-bed of its Gloucester Branch Railroad by filling solid in tide water in the towns of Beverly and Manchester, and to build abutments, a draw-pier, and additions to the present draw-pier of its bridge in Manchester harbor in the town of Manchester. Granted May 10, 1893.
1570. Petition of Stephen M. Weld for license to build a dike and flume in Bourne's Cove in the town of Wareham. Granted May 10, 1893.
1571. Petition of the Provincetown Cold Storage Company for license to build a pile wharf in Provincetown harbor in the town of Provincetown. Granted May 10, 1893.
1572. Petition of Thomas B. Wales and others for license to build sea-walls fill, solid and extend their wharf on Fort Point Channel in the city of Boston. Granted May 17, 1893.
1573. Petition of Vaughn D. Bacon, Thomas C. Day and Eben B. Crocker for license to build a pile wharf and to maintain a float-stage in Barnstable harbor in the town of Barnstable. Granted May 17, 1893.
1574. Petition of William H. Friend for license to build a pile wharf and pier in Vincent Cove in the city of Gloucester. Granted May 17, 1893.
1575. Petition of Rogers Brothers for license to extend their wharf, on piles, in Boston harbor near the Reserved channel at South Boston. Granted May 23, 1893.
1576. Petition of the Martha's Vineyard Company for license to build a pile wharf on Vineyard Sound in the town of Tisbury. Granted May 23, 1893.
1577. Petition of the cities of Boston and Cambridge for license to repair a portion of the fender-guard of Canal or Cragie's Bridge on Charles River in the city of Cambridge. Granted May 24, 1893.
1578. Petition of John W. Churchill and others for license to build a dam and flume, and to excavate a canal near Darby Pond in the town of Plymouth, and to draw water from said pond. Granted May 24, 1893.
1579. Petition of the Boston & Maine Railroad for license to rebuild a portion of its wharf, on piles, between its Southern Division passenger bridge and its Southern Division

Nos.

- freight bridge on Charles River in the city of Cambridge, and to dredge in front of said wharf. Granted May 31, 1893.
1580. Petition of the Bowenville Coal Company for license to widen its wharf, partly solid and partly on piles, on Taunton River in the city of Fall River. Granted June 7, 1893.
1581. Petition of Johnson Brothers for license to build a pile structure in their dock in South Bay in the city of Boston, to drive additional piles within the lines of their wharf, and to fill solid a portion of said wharf. Granted June 20, 1893.
1582. Petition of Amelia B. Rowe for license to fill solid a portion of her wharf in South Bay in the city of Boston. Granted June 20, 1893.
1583. Petition of William H. Nickerson and others for approval of plans for an outlet from Herring Pond in the town of Eastham, as authorized by chapter 77 of the Acts of 1893. Granted June 26, 1893.
1584. Petition of the Board of Metropolitan Sewerage Commissioners for approval of plans for an outfall sewer at Deer Island in Boston harbor, as authorized by chapter 439 of the Acts of 1889. Granted June 26, 1893.
1585. Petition of the Board of Metropolitan Sewerage Commissioners for approval of plans for a pumping station, sewer and siphon on Mystic River near Malden bridge in the city of Boston, as authorized by chapter 439 of the Acts of 1889. Granted June 26, 1893.
1586. Petition of the city of Salem for license to rebuild a portion of the bridge on South River, at Union Street, in the city of Salem, and to widen the draw in said bridge. Granted June 27, 1893.
1587. Petition of the Boston & Maine Railroad for license to widen its wharf between its Eastern and Western Division bridges on Miller's River in the city of Boston, to rebuild a portion of said wharf, and to dredge. Granted June 29, 1893.
1588. Petition of the Cape Cod Bay Land Association for approval of plans for a bridge across Blackfish Creek in the town of Wellfleet, as authorized by chapter 132 of the Acts of 1893. Granted June 29, 1893.
1589. Petition of L. G. Burnham & Co. for license to build a pile structure in a dock on Fort Point Channel near Mount

Nos.

- Washington Avenue bridge, at South Boston. Granted June 29, 1893.
1590. Petition of Franklin P. Gurney and Edwin D. Gurney for license to build a sea-wall and bulkhead and to fill solid in Boston harbor at East Boston. Granted June 29, 1893.
1591. Petition of Lorenzo Richardson & Co. for license to fill solid and build a pile wharf on Chelsea Creek in the city of Chelsea. Granted July 12, 1893.
1592. Petition of the town of Milton for license to extend the easterly draw-pier of Granite bridge on Neponset River in said town. Granted July 18, 1893.
1593. Petition of the American Sugar Refining Company for license to build a sea-wall and fill solid on Fort Point Channel in the city of Boston. Granted July 19, 1893.
1594. Petition of the city of Boston for license to rebuild a portion of Dover Street bridge on Fort Point Channel in the city of Boston, as directed by a special commission appointed under chapter 428 of the Acts of 1890. Granted July 26, 1893.
1595. Petition of the Winnissimmett Company for license to extend a portion of its wharf, on piles, on Chelsea Creek in the city of Chelsea. Granted July 26, 1893.
1596. Petition of John Reed for license to extend his wharf by filling solid in Hull Bay in the town of Hull. Granted July 31, 1893.
1597. Petition of Horace H. Bigelow for license to build and maintain a pile foot-bridge in Lake Quinsigamond in the city of Worcester. Granted July 31, 1893.
1598. Petition of the Boston & Maine Railroad for license to build a stone abutment at the southerly end of Beverly bridge, to fill solid, and to rebuild a portion of said bridge, on Bass River in the city of Salem. Granted July 31, 1893.
1599. Petition of William F. Nye for license to extend his wharf, on piles, in New Bedford harbor, at Fish Island in the city of New Bedford. Granted Aug. 3, 1893.
1600. Petition of E. H. Noble & Co. for license to locate and maintain a float-stage in New Bedford harbor, near Fort Phoenix in the town of Fairhaven. Granted Aug. 3, 1893.
1601. Petition of the Old Colony Railroad Company for license to build an abutment and retaining walls at the westerly end of Dover Street bridge, on Fort Point Channel in

- Nos.
- the city of Boston, and to build a stone pier and fill solid at and near the easterly end of said bridge, as directed by a special commission appointed under chapter 428 of the Acts of 1890. Granted Aug. 3, 1893.
1602. Petition of George M. Smith for license to extend his wharf, on piles, on Charles River in the city of Cambridge. Granted Aug. 8, 1893.
1603. Petition of Ann M. White for license to build and maintain a solid filled wharf in Marblehead harbor in the town of Marblehead. Granted Aug. 8, 1893.
1604. Petition of Mrs. Lamont G. Burnham for license to build a wharf on stone and timber piers on Essex River, at Long Island in the town of Essex. Granted Aug. 11, 1893.
1605. Petition of the Boston & Maine Railroad for license to build a stone abutment at its bridge in Manchester harbor in the town of Manchester, to build a new draw-pier to said bridge, to build an addition to the present draw-pier of said bridge, and to fill solid. Granted Aug. 11, 1893.
1606. Petition of Sarah H. Stratton for license to fill solid a portion of her wharf on Fort Point Channel in the city of Boston. Granted Sept. 8, 1893.
1607. Petition of the Quinsigamond Lake Steamboat Company for license to build and maintain a wharf in Lake Quinsigamond in the town of Shrewsbury. Granted Sept. 19, 1893.
1608. Petition of the town of Plymouth for license to lay a sewer-pipe in Plymouth harbor in the town of Plymouth. Granted Sept. 19, 1893.
1609. Petition of Patrick Meehan for license to build and maintain a pile wharf in Buzzard's Bay in the town of Falmouth. Granted Sept. 19, 1893.
1610. Petition of the Board of County Commissioners of Bristol County for approval of plans for a bridge across the East Branch of Westport River in the town of Westport, as authorized and required by chapter 125 of the Acts of 1893. Granted Sept. 26, 1893.
1611. Petition of Isaiah Spindell for license to widen a portion of Bar Neck wharf, on piles, in Wood's Holl Great harbor in the town of Falmouth. Granted Sept. 26, 1893.
1612. Petition of George Parker for license to build a pile wharf in Boston harbor at East Boston. Granted Oct. 3, 1893.

Nos.

1613. Petition of the West End Street Railway Company for license to widen a portion of its wharf, on piles, in South Bay in the city of Boston. Granted Oct. 8, 1893.
1614. Petition of the Board of County Commissioners of Essex County for approval of plans for a foot-bridge across the Merrimac River adjoining the Boston & Maine Railroad Bridge in the city of Haverhill and town of Bradford, as authorized and required by chapters 244 and 458 of the Acts of 1893. Granted Oct. 3, 1893.
1615. Petition of Joseph Hellen for license to build a sea-wall and fill solid on Mystic River in the city of Medford. Granted Oct. 10, 1893.
1616. Petition of Mrs. Mary A. Harvey for license to build and maintain a wharf and float-stage on Weymouth Fore River in the city of Quincy. Granted Oct. 20, 1893.
1617. Petition of the city of Boston for license to dump snow and ice into tide waters in and around the cities of Boston, Cambridge and Chelsea. Granted Nov. 28, 1893.
1618. Petition of the West End Street Railway Company for license to dump snow and ice from certain bridges into tide waters. Granted Nov. 28, 1893.
1619. Petition of the town of Manchester for license to build a sea-wall and fill solid in Manchester harbor in said town. Granted Nov. 28, 1893.
1620. Petition of William C. Norcross for license to build a pile wharf in South Bay in the city of Boston. Granted Nov. 28, 1893.

Of the foregoing licenses, Nos. 1565, 1572, 1591, 1606 and 1615 were granted to authorize solid filling, extending beyond the bulkhead lines approved by the Secretary of War. Nos. 1532, 1549, 1594 and 1601 authorized structures extending beyond the pierhead line approved by the Secretary of War. These licenses were made subject to the laws of the United States in respect to harbor lines, and in order to give them validity the approval of the Secretary of War was necessary.

APPLICATIONS FOR LICENSES REFUSED OR WITHDRAWN.

Filed on Dec. 22, 1892, petition of John C. Haynes, George W. Parke and William G. Fish, Trustees, for license to build two piers in Buzzard's Bay, in the town of Falmouth. Hearings given on Jan. 12 and 26, 1893. It appeared that the piers, if constructed,

would substantially surround the shore of certain land belonging to Mr. Patrick Meehan, who objected to the granting of the license. The Board were unwilling to grant the license applied for without the consent of the owners of all the land to be enclosed by the proposed structures. The petitioners, at their request, were given leave to withdraw.

Filed on Jan. 5, 1893, petition of the American Linen Company for license to extend its wharf on Taunton River, in the city of Fall River. Hearings were given on Jan. 19 and Feb. 9, 1893. The Board also visited the wharf which it was desired to extend. They were satisfied that the proposed structure could not be built without injury to the dock of the Fall River Iron Works Company, the adjoining proprietor, which opposed the granting of the license. On Feb. 9, 1893, the Board finally considered the matter and dismissed the petition.

Filed on March 9, 1893, petition of Walter W. Hodgkins for license to build a wharf in Lake Quinsigamond, in the city of Worcester. Hearing given on March 30, 1893. The city of Worcester appeared and opposed the granting of the license on the ground that the contemplated use of the proposed structure would interfere with the safe and convenient use of the causeway across Lake Quinsigamond. The petition was dismissed.

Filed on May 31, 1893, petition of C. Walter Hall and others to excavate an outlet to Slough Pond, in the town of Brewster. Hearings were given on June 13 and July 25, 1893. Mr. Jeremiah Walker, through whose land runs the outlet which the petitioners desired to excavate, opposed the granting of the license, and the Board refused to grant the license without his consent.

Filed on April 30, 1891, petition of Henry S. Barnes for license to build a pile wharf at Gibbs' Narrows, in the town of Bourne. Hearing was given May 14, 1891. The case had been pending for a long time, and, after notice to the petitioner, on Feb. 16, 1893, the petition was dismissed.

MISCELLANEOUS PERMITS.

In addition to the licenses already mentioned as granted by the Board during the period covered by this report, there were also granted twenty miscellaneous permits for other purposes, such as for dredging, for dumping material at certain places under proper restrictions, for taking gravel or sand from certain beaches for certain purposes, to lay a pipe

under a beach and projecting into tide water, to excavate a berth at the end of a certain wharf, and for authorizing the publication of a certain notice in the name of the Board.

TIDE-WATER ASSESSMENTS AND THE BOSTON HARBOR COMPENSATION FUND.

From tide-water assessments under licenses granted by the Board there was paid into the treasury of the Commonwealth during the eleven months ending Nov. 30, 1893, the sum of \$5,605.69. These assessments were all made in Boston Harbor, and the money is accordingly reserved, under the provisions of section 14 of chapter 19 of the Public Statutes, as part of the compensation fund, the income of which may be used and expended from time to time under the direction of the Board for the improvement of that harbor. The Board has received various requests for the application of portions of the income of this fund for certain local improvements which are required in different parts of Boston Harbor, and they have now under consideration, as work which they might be able to do by means of the income from the fund, certain dredging in the Neponset River, and the removal of certain shoals in South Bay and Charles River, the surveys for which have already been mentioned. Any work thus done by the Board will be undertaken only after conference with Lieutenant Colonel Mansfield, who is in charge of the work done by the United States in the harbors in the eastern district of Massachusetts. The United States Government assumes charge of all harbor improvements which are required for the purposes of international and interstate commerce. The intention of the Board is to apply the income of the harbor compensation fund to improvements which are essentially local and which the United States Government might not think it worth while to undertake.

RECEIPTS FROM GRANTS OF PUBLIC LANDS.

The amount received during the eleven months ending Nov. 30, 1893, for grants of rights and privileges in lands of the Commonwealth under licenses from this Board for filling and for the erection of wharves and other structures

in and over tide waters and great ponds is \$88,436.93. Other like assessments to the amount of \$5,032.50 have been made during the same period, for which the money has not yet been paid into the treasury. Payment for such grants was first required by chapter 284 of the Acts of 1874, now section 16 of chapter 19 of the Public Statutes. Since the passage of that act the total amount so received and paid into the treasury of the Commonwealth is \$372,639.33.

In addition to the payments above named, \$50 was paid as rent for Hangman's Island.

The amounts received from leases of the Commonwealth's lands at the South Boston Flats and paid into the Commonwealth's Flats Improvement Fund was \$2,259.94, as already stated in the portion of this report relating to that subject.

LEASE OF HANGMAN'S ISLAND.

Hangman's Island is situated within the tide-water limits of the city of Quincy and is subject to the jurisdiction of that city, but, having no other ownership, belongs to the Commonwealth, and on Jan. 1, 1890, this Board gave a lease of the island to certain fishermen who were occupying it. This lease terminated on Jan. 1, 1893, and on application of the fishermen the Board authorized and executed a new lease running three years from Jan. 1, 1893, at the rent of \$50 a year, payable on the 1st of July in each year. The former lease was made to S. Albert Freeman of Boston as trustee. Mr. Freeman has now withdrawn from that position, and the new lease is made to Lawrence Hagan, one of the fishermen, who lives on the island, as trustee for himself and five others. Otherwise the terms of the new lease are the same as those of the former lease, which is printed in the appendix to the report of this Board for the year 1890.

THE PROVINCE LANDS.

Chapter 470 of the Acts of 1893 provides that the Board of Harbor and Land Commissioners shall have general care and jurisdiction of so much of the Province Lands at Provincetown as lie north and west of the line described in the said act. Said act further provides that—

The said commissioners shall fix and mark the bounds of the province lands within their jurisdiction, and shall establish regulations for the care thereof, shall annually appoint a superintendent thereof, and with the approval of the governor and council shall fix the amount of his salary and the amount which may be expended by him in the protection and improvement of said land.

Further provisions of the act release that portion of the Province Lands lying east and south of the line fixed thereunder from the claims hitherto asserted by the Province and the Commonwealth to ownership of the said lands in fee, and, as to said released portion of said lands, repeal the clause excepting the Province Lands from the provisions of the Public Statutes permitting a title to lands to be acquired against the Commonwealth by twenty years' adverse possession.

The effect of the statute is that private ownership remains impossible in the reserved portion of the Province Lands lying north and west of the line established and that all of the lands in this portion belong in fee to the Commonwealth and can be used and occupied only by its permission, and subject to such regulations as this Board shall from time to time establish. Said reserved portion, although belonging to the Commonwealth, forms a part of the township of Provincetown, as incorporated by chapter 11 of the Province Laws of 1727, and is subject to its jurisdiction. The released portion of the said lands is about 955 acres and includes the whole inhabited part of the town of Provincetown, there being about 5,000 inhabitants.

The Commissioners, as directed by the said act of 1893, have fixed and marked the bounds of the Province Lands within their jurisdiction, and annex to this report as a part thereof a map on which said bounds are designated by courses and distances.

The Commissioners have appointed as superintendent of the Province Lands for the half year ending July 1, 1894, Mr. James A. Small of Provincetown, and with the approval of the Governor and Council have fixed his salary at the rate of \$600 a year.

The Commissioners have, since the passage of the act, per-

sonally visited and inspected the Province Lands, and have given much time to the consideration of the question of what and how much work is required for their preservation, protection and improvement. It is too early yet to have matured any final plan. The principal work immediately in contemplation is the planting of trees or bushes and of beach grass and probably Scotch broom, with the aim of restraining, and so far as possible preventing, the drifting of the loose sands. These sands at present are swept by the winds over woodlands and ponds, burying everything before them, and are advancing slowly but surely towards the town of Provincetown and its harbor. It is also proposed to construct a road leading from the town of Provincetown into the Province Lands. The location of this road has not yet been definitely decided upon. It will have to be fixed after consultation with the town authorities, inasmuch as it will be necessary for the town to construct a road to connect with the Commonwealth's road at the boundary line.

The tract now designated as the Province Lands was purchased from the Indians in behalf of the Government and Colony of New Plymouth. The first deed of the lands was given by an Indian named Sampson to Thomas Prence in 1654 "or sometime before that date" "for the said Colonies use," the consideration being "2 brasse kettles six coates twelve houes 12 axes 12 knives and a box." Said lands were "assigned for the Collonies use for ffishing Improvements." Twenty-five years later, on February 5, 1679, another and confirmatory deed of these lands was given by the said Indian Sampson and two other Indians named respectively Peter and Joshua. This last deed recited the facts just stated in regard to the deed of Sampson to Thomas Prence and also set forth that since the making of the first deed it had appeared that the Indians Peter and Joshua claimed part of the said lands, and that therefore the new deed was given, executed by all three, a consideration of five pounds and ten shillings being paid to Peter and Joshua in addition to the consideration already mentioned which was paid to Sampson at the time he gave the first deed. The confirmatory deed was made to John Freeman, who was at

that time one of the Assistants of the Colony, “in behalf of the Government and Collonie of New Plymouth aforesaid.”

The first deed of Sampson to Thomas Prence is not in existence, and no record of it has been found. The following is printed from a certified copy of the confirmatory deed of 1679, as recorded in the Plymouth Colony Records, Vol. IV. of Deeds, pages 318, 319. The original deed, of which a fac-simile is inserted in this report, is preserved in the office of the Secretary of the Commonwealth: —

Winslow, Court.

This Indenture made the fift day of february Ann^o Dom one thousand six hundred seaventy and nine between Samsson Indian of Pottonumalutt . . . Peter Indian of Paornett and Joshua Indian of Paornett aforesaid in the Collonie of New Plymouth of the one pt and Capt. John freeman of Eastham in the Collonie of New Plymouth aforesaid Esquir in behalf of the Gouverment and Collonie of New Plymouth aforesaid of the other pt Witnesseth that whereas the said Samsson did in the year of our Lord one thousand six hundred fifty and four or sometime before that date bargainne sell and enfeofe unto the honored Thomas Prince Esqr. Late Gouer of the said Collonie, for the said Collonies use their heires successors and assignes forever all that his prsell of land lying and being upon Cape Codd beginning att the point of land comonly called the house point on the southerly syde of the harbour comonly called Cape Codd harbour; extending westerly as farr as the creek comonly known there by the name of Lovells Creek together with all the beaches flatts waters proffitts privildges and appurtenances to the said bargained prmises belonging or any wise appertaining from sea to sea on both sides of the said bargained prsell of land: and alsoe all his said right title and interest into any of the lands, from the said Lovells Creek extending round the said harbour; easterly untill it comes to a little pond next the easteren harbour being about two or three miles as is supposed, short of the said easteren harbour: and by a southerly line from the said little pond to the said Cape Codd harbour near against the eastermost point of the said house point of land: and from the said pond northerly to the back sea; which contains the bounds sett by the said Gouer Prence; and assigned for the said Collonies use for ffishing Improvements: for and in consideration of 2 brasse kettles six coates twelve hounes 12 axes 12 knives and a box by the said Gouer Prence to the said Samsson in hand payed, the receipt whereof the said Samsson doeth hereby acknowledge; and himself therewith

fully satisfied contented and payed ; and thereof doth acquitt and discharge the said Gouver Prence and Collonie their heires successors and assigns foreuer and by these presents doth fully freely and absolutely convey infeoffe and confirm unto the said John freeman in behalf of the said Gouvernement and Collonie of New Plymouth, their heires successors and assigns forever : all the said bargained prsell of land with other the said bargained premises and appurtenances ; To have and to hold to the onely proper use and behoof of the said Gouvernement and Collonie ; their heires successors and assigns foreuer ; and further witnesseth these presents that altho att the time of the said Gouver Prence his said purchase of the said Samsson and his possession taken of the lands bounded as above mentioned for the Collonies use as aforesaid on the said Gouvernors inquiring of Mr John and of other old Indians ; there appeared noe other Indians but the said Samsson to lay claime to any of the said lands : yett it since appeering that the above mentioned Peter and Joshua Indians claime prt of the said lands : viz : from the said Lovells Creek, to the said Little pond crosse the Neck to both seas as aforesaid by virtue of a graunt and purchase from John . . . Suason by consent and order from his father Mattagoason Sachem whose right it was as appeers by the testimony of sundry old Indians, the Gouvernement aforesaid being willing to doe noe wronge to the Indians whose right appeers and for maintaining peace and good agreement between the Indians and the English are content fairely to obtaine by due satisfaction made to the Indians for what land they haue witnesseth therefore these presents ; that the said Peter and Joshua Indians for and in consideration of five pounds and ten shillings to them in hand payed by the said John freeman in the behalfe of the said Gouvernement and Collonie the receipt whereof the said Peter and Joshua doe hereby acknowledge and themselves therewith fully satisfied contented and payed and thereof and of every prt and prsell thereof doe exonnarate acquitt and discharge the said John freeman Gouvernement and Collonie their heires successors and assigns for euer by these presents ; have freely and absolutely given graunted bargained sold enfeofed and confirmed ; and by these presents doe give graunt bargain sell infeoffe and confirme, unto him the said John freeman the Gouvernement and Collonie of New Plymouth their heires successors and assigns foreuer by these presents all those our Lands att Cape Codd lying between sea and sea, from the said Lovells Creek : unto the said Little pond called by the Indians . . . Weak-wolthtagesett ranging from thence by a marked pyne tree southerly by a smale Red oak tree marked standing on on the easterly end of the clift called by the Indians Letistotogsett because Cormorants

use there to Roost and thence to the sea being neare over against the easteren end of the aboue mensioned Land called the house point together with all the beaches fflatts waters proffitts privlidges and appurtenances to the said bargained lands belonging or any way appertaining excepting alwayes reserved to the use of the said Peter and Joshua theire and euery of their heires and assignes foreuer libertie to sett their Wigwams on the said Lands and to cut firewood and beach Grasse and flages for their use and to Gather wild pease huckleberryes and cramberrys and to have such whales Blackfish porpusses and blubber as shall cast on shore between the said Louells Creek and the Clift aforesaid. To haue and to hold all the said Lands and other the said bargained prmises with their appurtenances unto the said John ffreeman Gouverment and Collonie of New Plymouth aforesaid their heires successors and assignes foreuer unto the onely proper use and behoof of them the said John ffreeman . . . Gouverment and Collonie aforesaid their heires successors and assignes for euer except as before excepted to be reserved, and they the said Samsson Peter and Joshua for themselves and each of them for his heires and assignes ; all the said bargained lands prmises and appurtenances to the said John ffreeman Gouverment and Collonie for and to the onely proper use and behoof of the said Collonie in Manor and forme aforesaid ; except as before excepted, against them the said Samsson, Peter and Joshua theire and euery of their heires and assignes shall warrant and foreuer defend by these prsents. In Witness whereof the prties to these prsents have hereunto enterchangable sett their handes and seales the date aboue written.

SAMSSONS MARK  (seal)

PETERS } MARK (seal)

JOSHUA HIS *A* MARK (seal)

Signed sealed and delivered in prsence of

William ffreeman

John Sias

John Suason *D* his mark

Will : Abstomls + his Mark.

The within and aboue mensioned Samsson
Peter and Joshua appeered the date
abouesaid and acknowledgid these prsents
to be their act and deed

Before me THOMAS HINCKLEY *Assistant*.

PLYMOUTH, MASS., Dec. 18, 1893.

The above is a true copy from Plymouth Colony Records, Vol. IV. of Deeds, pages 318, 319.

Attest :

WM. S. DANFORTH, *Reg.*

In 1691 the Colony of New Plymouth was made a part of the Province of Massachusetts Bay and these lands thenceforth were called the "Province Lands."

The scenery of the Province Lands is exceedingly unique and interesting, consisting of irregular hills, ridges, dunes and beaches of sand, with a number of shallow ponds and thickets of scrub growth, containing many trees of fair size, among them pines, oaks and maples. The whole tract is a wilderness of about 3,290 acres, bounded by the Atlantic ocean on the north and west.

Some persons have had the idea that the Province Lands could be made into a species of park for the people of the Commonwealth, and no doubt, if enough money were spent, it could be made a very beautiful place for summer recreation, differing in character from any park in the world, the color effects of the sand, water and foliage being most picturesque and attractive. It is, however, distant from any centre of population, and the expenditure of money by the Commonwealth for the purpose of turning the Province Lands into a pleasure ground would be a departure from precedent which this Board would not take the responsibility of recommending until practically assured of the success of the experiment. At present it is unnecessary to determine what the ultimate use of the Province Lands shall be, the efforts of the Commissioners being directed simply to preventing the shifting sands from doing injury and to making the Province Lands in their present state reasonably accessible from the town of Provincetown.

By chapter 480 of the Acts of 1893 there was appropriated for the purpose of providing for the care and supervision of the Province Lands a sum not exceeding \$2,000. There has been expended out of this appropriation the sum of \$610.86. This was used in paying the expenses of the surveys made under the engineer of this Board and for the making and placing of monuments marking the bounds, and also includes travelling expenses, but nothing for the salary of the superintendent, as his term does not begin until the 1st of January, 1894. The Commissioners estimate that to provide for the care and supervision of the Province Lands during the year 1894, including the salary of the superintendent and the ex-

penditures necessary for procuring and planting trees, grass and broom, and building some portion of the proposed road, an appropriation of \$3,500 will be required.

BOUNDARY ON TIDE WATER BETWEEN THE TOWNS OF MASHPEE AND BARNSTABLE.

Chapter 105 of the Resolves of 1893 directed the Board of Harbor and Land Commissioners to examine and define the boundary line on tide water between the towns of Mashpee and Barnstable and report thereon to the next General Court. The Board gave a hearing upon this matter at Cotuit on May 16, 1893, and their engineer during the following summer made a careful survey of Popponessett Bay, with soundings showing the existing channels. Copies of the plan made by the engineer of the Board were sent to the counsel for the towns of Mashpee and Barnstable, and on October 25, another hearing was given at Cotuit. At both of the hearings the towns were represented by counsel and a number of witnesses on both sides examined. The testimony given at the hearings related principally to the question of where the channel of Popponessett Bay was in 1858, when the selectmen of the two towns made a perambulation defining the boundary line on tide water between the two towns as running by the middle of the Santuit river "to the channel of Popponessett Harbor, and by said channel to the Vineyard Sound." Subsequent investigation satisfied the Commissioners that the perambulation of 1858 was inaccurate, and that the selectmen who signed the report had no authority for the declaration that the boundary through Popponessett Bay ran by the channel.

The Commissioners find that the boundary line which they are called on to examine and define was established in January, 1795. By a resolve passed on March 26, 1793, the Legislature appointed George Partridge of Duxbury, Samuel Smith of Dartmouth and Nathaniel Hammond of Rochester to perambulate and settle the true boundary lines between the lands of the Mashpee Indians and the proprietors of the town of Barnstable. The resolve terminated as follows : —

The doings of the said Committee certified under their hands to this Court and accepted & recorded in the Office of the Register of deeds of the County where such lands lay to be definitive and conclusive between the parties.

By a subsequent resolve, passed on Jan. 22, 1794, Samuel Smith having died, Isaac Thompson was appointed in his stead and authorized, in conjunction with George Partridge and Samuel Hammond, to do and perform all the business designated in the resolve of 1793.

By a third resolve passed on Jan. 22, 1795, the report of Partridge, Thompson and Hammond, dated Oct. 7, 1794, was accepted by the Legislature. A copy of said three resolves, certified by the Secretary of the Commonwealth, is printed in the appendix to this report. [See Appendix E.] The first resolve was approved as Governor by John Hancock, and the last two by Samuel Adams.

The portion of the said report relating to the boundary between the towns on tide water is as follows : —

— thence West twenty nine degrees south thirty Rods to a brook or River called Somtuite alias Contuite River a little below a pond called Somtuite alias Contuite pond — thence down stream by the middle of said River to paupanesset bay — thence by said Bay to the sea — leaving two Islands — of salt marsh or flats called Thatch Islands lying in said bay to appertain and belong to the district of Mashpee —

On June 26, 1794, the Legislature passed a resolve requiring the inhabitants of the several towns and districts in the Commonwealth to cause to be taken by their selectmen or some other suitable persons accurate plans of their respective towns and to lodge the same in the Secretary's office.

By another resolve passed on June 25, 1795, the overseers of the district of Marshpee were authorized to cause an accurate plan of said district to be taken at the expense of the Commonwealth, in accordance with the resolve of June 26, 1794.

Under these Resolves the town of Barnstable and the district of Mashpee both filed plans. The plan of Mashpee does not carry the boundary line into the tide water, but it

has the following indorsement upon it: "The Line Between Barnstable and Marshpee was Settled by a Committee from General Court in 1793."

The plan filed by Barnstable was made by Samuel Bassett in May, 1795. It represents the boundary in Popponessett Bay as made up of a series of straight lines connecting at angles, running through the bay to the sea.

On March 1, 1830, the Legislature passed another resolve similar to the one of 1794, requiring all towns to make surveys of their territory and return plans of the same into the Secretary's office. Under this Resolve also both Barnstable and Mashpee filed plans. The plan of Barnstable does not carry the line into tide water, but that of Mashpee, which is thereon called "Marshpee," designates the boundary on tide water by a dotted line running through Popponessett Bay to the sea. It is evident that neither the Barnstable map filed under the resolve of 1794 nor the Mashpee map filed under the resolve of 1830 was founded on any actual survey of the coast line, the shore in both cases being indicated by an irregular wavy line, which has very little resemblance to its actual contour. But both of these maps make it plain that the boundary line through Popponessett Bay to the sea did not run by the channel.

Perambulations by the selectmen of the two towns are recorded for the years 1826, 1838, 1848, 1853, 1858, 1865, 1871, 1876, 1881, 1885 and 1890. In all of these perambulations except that of 1858, which has already been mentioned, the descriptions substantially follow the language of the establishment of the line by Partridge, Thompson and Hammond under the resolve of 1793, and describe the boundary as running through or by the said bay to the sea, making no mention of the channel.

In response to the above named resolve of 1893, this Board respectfully submits to the Legislature the map which accompanies this report, and recommends the establishment by statute of the boundary line on tide water between the towns of Mashpee and Barnstable thereon designated. The Commissioners believe that the line which they recommend is in accordance with the boundary line originally established by Partridge, Thompson and Hammond and accepted by the

General Court in 1795. The line resembles in character and in general direction that laid down upon the Barnstable map filed under the resolve of 1794, and is consistent with the general direction of the line indicated on the Mashpee map filed under the resolve of 1830, although the coast line on this last-named map is so wholly imaginary that no important conclusion can be drawn from it.

The boundary line recommended is composed of a series of straight lines, laid out in such a way that they can be easily designated by monuments placed on the mainland and on Gooseberry, Popponessett, Little Thatch and Big Thatch islands. The board recommend that, if the Legislature see fit to establish the line designated by them, the act establishing it shall provide for its being marked by suitable monuments.

WORK OF THE UNITED STATES IN HARBORS OF THE COMMONWEALTH.

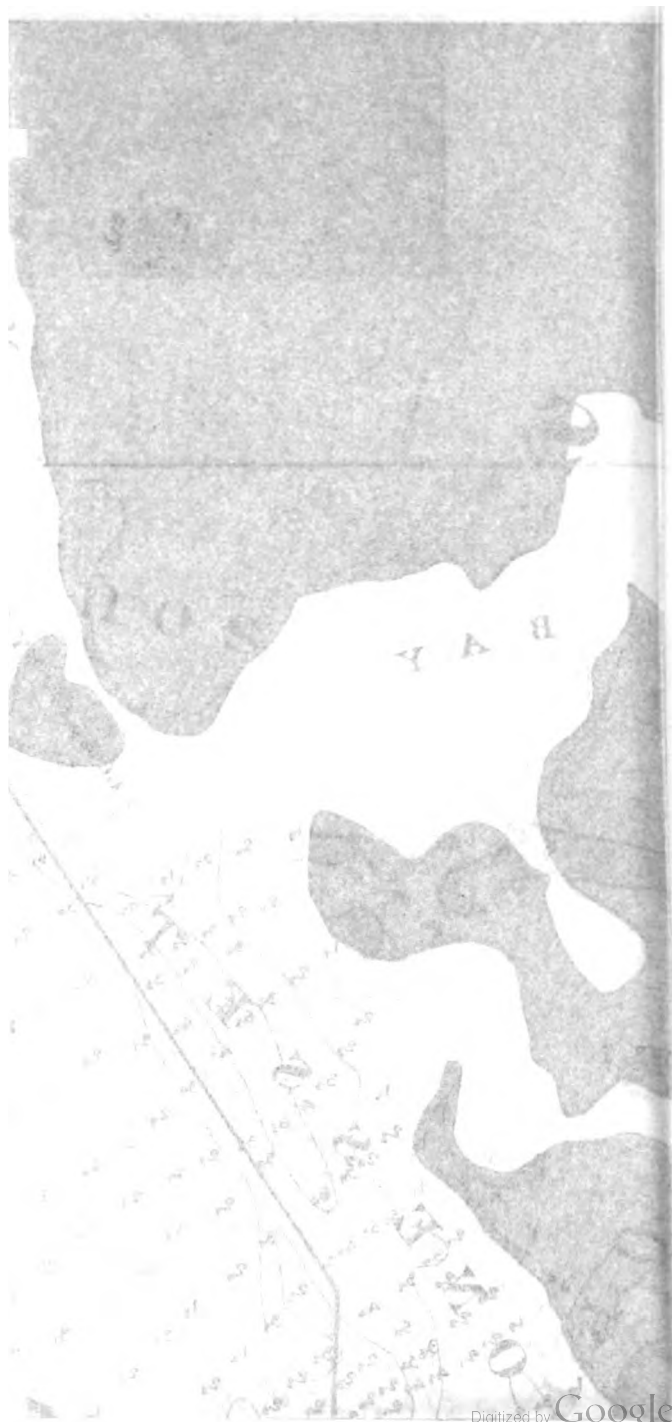
Lieut. Col. Samuel M. Mansfield of the Corps of Engineers, U. S. A., who is in charge of the harbors of the Eastern District of Massachusetts in behalf of the United States, and Capt. William H. Bixby of the Corps of Engineers, U. S. A., who is similarly in charge of the harbors of the Southern District, have continued to give to the Board their cordial co-operation and assistance. We have the privilege of appending to this report statements made by these officers of the work respectively accomplished by them during the year in the harbors of this Commonwealth, being abstracts from their own annual reports kindly made by them at the request of this Board.

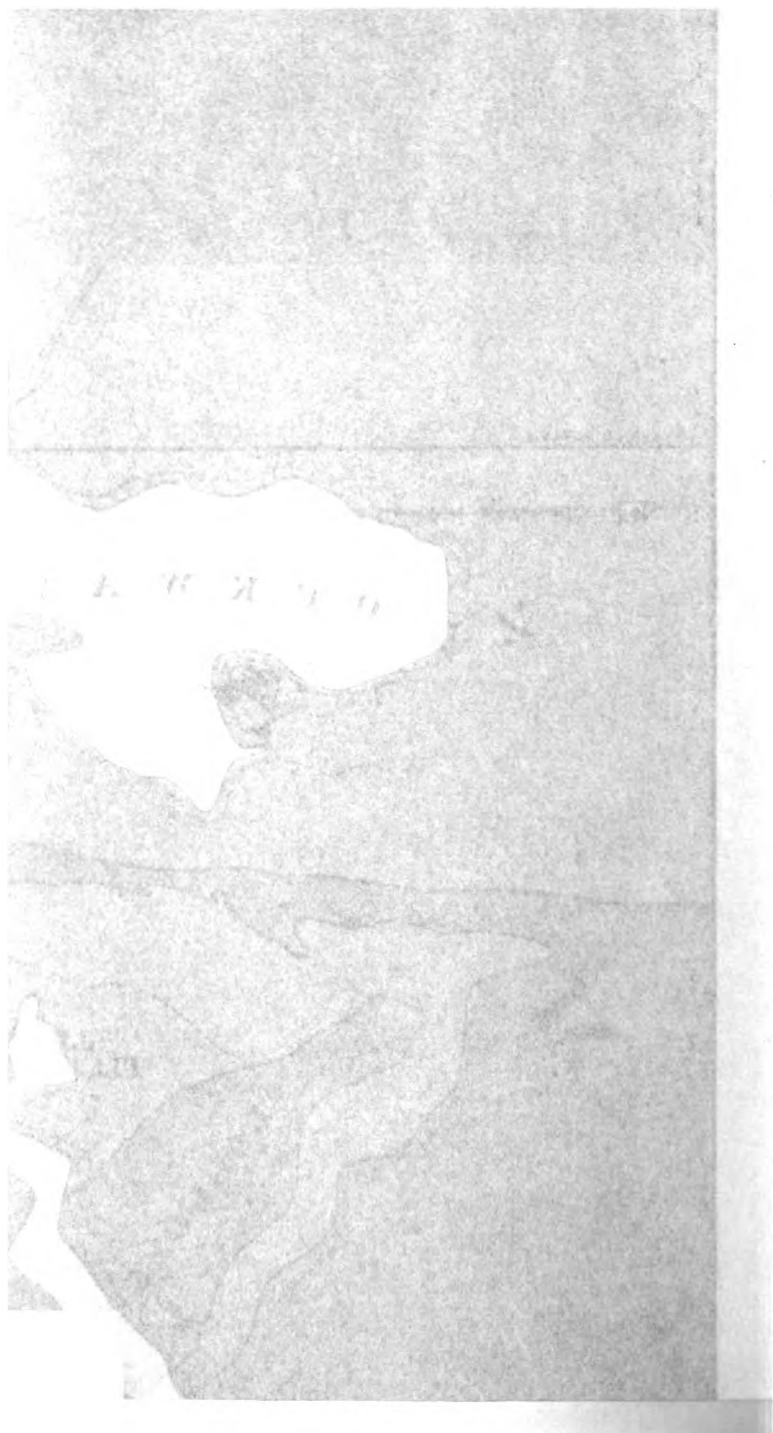
The foregoing report is respectfully submitted by

HENRY W. SWIFT,
JOHN I. BAKER,
CHARLES H. HOWLAND,
Commissioners.

Boston, Dec. 1, 1893.







STATEMENT

OF

LIEUT. COL. S. M. MANSFIELD, CORPS OF ENGINEERS, U. S. A.

[Referred to in the foregoing Report of the Board.]

Nov. 29, 1893.

The Board of Harbor and Land Commissioners of Massachusetts :

GENTLEMEN :— In accordance with your request of Nov. 27, 1893, I have the honor to furnish the following summary of the work done by the government during the year 1893, in those rivers and harbors of Massachusetts which are under my charge :

1. Newburyport Harbor.

The project for the improvement of this harbor has not been changed.

No work has been done during the year on the south jetty or Plum Island dike.

Under the contract with Mr. George Willett Andrews, 11,359 tons of rubble-stone were deposited in the north jetty during the year, and 2,700 feet of the jetty are now essentially completed. Operations under this contract were suspended for the season in Nov. 1893, and will be resumed about May 1, 1894.

The annual survey of the bar was made in May, 1893. It showed that there was 13 $\frac{6}{10}$ feet on the bar, and that the 13 foot channel across the bar was at least 300 feet wide.

2. Harbor of Refuge, Sandy Bay.

No change in the project was made during the year.

During the year under the contract with the Rockport and Pigeon Hill Granite companies, 82,000 tons of rubble-stone were deposited in the breakwater below mean low water, and 5,000 tons above low water. 300 feet of the breakwater are completed.

3. *Gloucester Harbor.*

The project for the improvement of the harbor remains unchanged.

During the year 83,719 cubic yards were dredged from Harbor Cove and the main harbor, under a contract with the National Dredging Company, and the improvement so far as dredging is concerned is completed.

Some small ledges uncovered by the dredging will be removed early next year.

No work has been done on the proposed breakwater at Eastern Point.

4. *Manchester Harbor.*

No change has been made in the project.

Under the contract with Mr. Edgar P. Lovering dredging was commenced during the latter part of Oct. 1893, but as only about 2,000 cubic yards have been dredged, no appreciable change in the improvement has been effected during the year.

5. *Salem Harbor.*

No change has been made in the project for the improvement of this harbor.

No work was done under the contract with Mr. Augustus R. Wright to dredge 40,000 cubic yards; but under the contract it is expected that the improvement will be completed during the coming year.

6. *Lynn Harbor.*

The project for this improvement remains unaltered.

Under the contract with Messrs. Boynton Bros. 39,808 cubic yards were dredged from the Western or Saugus River channel and the inner channel.

The entrance to the Saugus River channel is now 150 feet wide, 8 feet deep at mean low water.

7. *Winthrop Harbor.*

The project for the improvement of this harbor was completed under a contract with Mr. O. E. Lewis.

8. *Boston Harbor.*

No change was made during the year in the project for the improvement of this harbor.

During the year the improvement of the channel leading to Jeffrey's Point was completed. The channel is now 400 feet wide

from Grand Junction wharf to just east of Simpson's Patent Dry Docks, and 18 feet deep at mean low water; thence, it gradually narrows to 250 feet, and the depth decreases to 15 feet at mean low water to near Jeffrey's Point.

The dredging in the Nantasket Beach Channel was completed. The channel is now 12 feet deep at mean low water, except over the ledge near the steamboat wharf.

Under the contract with Mr. Charles H. Souther and Mr. Augustus R. Wright for the improvement of the main ship channel, during the year, 176,783 cubic yards were dredged, principally from the shoal off False Spit beacon, although some dredging has been done on the shoal off Boston Light, and from Brewster Spit.

9. *Hingham Harbor.*

The project for the improvement of this harbor was completed during the year by the removal of the ledge between Chandler's and Ragged islands, under a contract with Mr. George W. Townsend.

10. *Scituate Harbor.*

About 300 running feet of the south breakwater were built under the contract with Mr. Joseph H. White, of which 150 feet were built during the year.

No other change has occurred.

11. *Plymouth Harbor.*

The project for the improvement of this harbor was completed during the year under a contract with the National Dredging Company.

About 1,400 running feet of bulkheads protecting Long Beach were repaired.

12. *Kingston Harbor.*

The project for the improvement of this harbor was completed during the year, under a contract with the National Dredging Company. The channel to the Cordage Company wharf is 100 feet wide, 6 feet deep at mean low water.

13. *Wellfleet Harbor.*

No change has been made in the project, and no work has been done.

14. *Provincetown Harbor.*

No repairs or extensions of the works protecting this harbor have been made.

15. *Chatham Harbor.*

No change was made in the project and no work was done.

16. *Essex River.*

The project for the improvement of this river proposes to widen and deepen the natural channel of the river, for a distance of 12,000 feet, so that 4 feet at mean low water can be carried to the head of navigation, in a channel 60 feet wide.

No work was done during the year.

17. *Merrimac River.*

The project for the improvement of this river was completed during the year, by the removal of the "Boilers" to the depth of 5 feet at mean low water, under a contract with Messrs. Sturgis & Andrews.

18. *Powow River.*

No change has occurred in this improvement.

19. *Ipswich River.*

No work has been done under the contract with Mr. Edgar P. Lovering, by which it is expected to complete the improvement.

20. *Weymouth River.*

Nothing was done during the year.

21. *Mystic River.*

Nothing was done during the year.

22. *Malden River.*

Nothing was done during the year.

23. *Removal of Wrecks.*

A contract was entered into with Mr. D. A. Johnston to remove the wreck of the schooner "Wildfire" from Provincetown Harbor.

Operations were commenced under this contract in Nov. 1893, and will be completed next month.

An advertisement was issued inviting proposals for the removal of three unknown wrecks lying off Chatham.

Very respectfully, your obedient servant,

S. M. MANSFIELD,
Lieutenant Colonel of Engineers.

STATEMENT

or

CAPT. W. H. BIXBY, CORPS OF ENGINEERS, U. S. A.

[Referred to in the foregoing Report of the Board.]

Abstract of work of River and Harbor Improvement done in the State of Massachusetts by the U. S. Government, under direction of Capt. Wm. H. Bixby, Corps of Engineers, for the fiscal year ending June 30th, 1893, with brief notes as to subsequent work up to November 30th, 1893.

Taunton River, Mass.

The approved project of 1880, as modified in 1888, provides : — for the widening and deepening of the river so as to secure a channel of at least 12 feet depth at high water with 100 feet width from its mouth up to Berkley Bridge (above Dighton) ; thence 12 feet depth with 80 feet width (100 feet width at bends) up to Briggs Shoal ; thence 11 feet depth with 80 feet width up to the Ship Yard ; thence 11 feet depth with 60 feet width up to Weir Bridge, Taunton ; all at a total cost estimated in 1893 at \$125,000, of which \$108,000 has been appropriated up to June 30th, 1893, leaving \$17,000 still to be appropriated to complete the improvement as projected.

A plan of the works may be found at page 606, Annual Report of the Chief of Engineers for 1884 ; and a later more detailed plan in House Ex. Doc., No. 86, of the 50th Congress, 1st Session ; and further information at page 373 of the Annual Report of 1880 ; page 519 of 1888 ; and page 822, report of 1893.

At the adoption of the present project, the channel was limited to 9 feet at high water and was too narrow, and too much obstructed by boulders for easy navigation by the craft making use of it.

During the last fiscal year work was carried on at the Needles, Briggs Shoal, the reach below 3-mile River, and at Burt's Turn. About 5,050 yards of clay, sand and gravel have been dredged and 168 tons of boulders removed. Work on this river was stopped November 29th, 1892, since which time no further field work has been undertaken up to November 30th, 1893.

As a result of all work up to November 30th, 1893, almost all of the proposed project has been completed; especially at the places most complained of by the vessels using this river.

There was on November 30th, 1893, only \$3.35 available for the continuance of work.

Further work awaits further appropriations.

Hyannis Harbor.

The approved project of 1884, provides:—for the dredging to 15.5 feet depth at low water, of about 34 acres of shoal area north of the existing breakwater, so as to increase the deep water harborage by that amount; all at a total cost estimated in 1884 at \$46,743.20 (including \$81.20 left over from a former project,) of which \$34,081.20 has been appropriated up to June 30th, 1893, leaving \$12,662, still to be appropriated to complete the improvement as projected.

A plan of the works may be found at page 560, Annual Report of the Chief of Engineers for 1885; and further information at page 621 of 1885, and page 804 of 1893.

At the adoption of the present project, the 15.5 feet depth anchorage covered only about 47 acres, and the 34 additional acres to be dredged carried an average of about 12 feet depth of water at low water.

During the last fiscal year comparatively little work has been done except to enter into Contracts for the next season's work. No further work has been done up to November 30th, 1893, owing to unavoidable delays of the Contractor.

As a result of all work up to November 30th, 1893, 12 acres, out of 34, have been dredged.

There was on November 30th, 1893, a balance unexpended of \$5,124.81 available for the continuance of this work.

Contract work will be probably commenced and finished before May, 1894; after which further work will await further appropriations.

Nantucket Harbor.

The approved project of 1880, as modified in 1885, provides:—for the construction of two jetties, as training walls, one on each

side of the harbor entrance, planned so as to allow the tidal current to assist in scouring out and maintaining a good channel; and for the completion of the work by dredging where necessary to obtain a depth of 15 feet at low water in this channel; all at a total cost estimated in 1885 at \$375,000, of which \$195,000, has been appropriated up to June 30th, 1893, leaving \$180,000 still to be appropriated to complete the improvement as projected.

A plan of the works may be found at page 578, Annual Report of the Chief of Engineers for 1885, and at page 806, report of 1893.

At the adoption of the present project, no jetties existed; and the channel entrance was barred by a shoal of 1.5 miles width, on which there was only 6 feet depth of water at low tide.

During the last fiscal year preparations were made for the continuance of field work. Since then no further important field work has been done. The channel is found to be deepening and moving to the eastward.

As a result of all work up to November 30th, 1893, the west jetty has been built to 3,955 feet length with full height; the east jetty has been built to 834 feet length with full height; then comes a gap of 160 feet, and then 1,300 feet length raised to half tide level.

There was on November 30th, 1893, a balance of \$21,061.41 available for the continuance of work.

Work on this improvement will probably be commenced and finished early in the working season of 1894, after which further work will await further appropriations.

Edgartown Harbor.

The approved project of 1889, provides:— for the removal to 10 feet depth, at low water, of a “middle ground” shoal in the central part of the inner harbor; all at a total cost estimated in 1893 at \$7,000, of which \$4,500, has been appropriated up to June 30th, 1893, leaving \$2,500 still to be appropriated to complete the improvement as projected.

A description of the works may be found at page 588, Annual Report of the Chief of Engineers for 1890; and a plan of the same in House Ex. Doc. No. 59, of the 51st Congress, 1st Session; and at page 810 of report of Chief of Engineers for 1893.

At the adoption of the present project, the middle ground shoal carried only about 6 feet depth of water and was a very troublesome obstruction.

During the last fiscal year about one-fourth of this shoal has

been dredged. Work was commenced April 21st, and stopped May 9th, 1893. 9,494 cubic yards of hard sand have been removed from 2,035 feet length and 33 feet width of cutting and to a depth of at least 10.5 feet at low water. No further work has been done up to November 30th, 1893.

As a result of all work up to November 30th, 1893, about three-fourths of the shoal has been dredged to full depth.

There was on November 30th, 1893, only \$19.06 available for continuance of work.

Further work awaits further appropriations.

Vineyard Haven Harbor.

The approved project of 1887, as modified in 1889, provides : — for the protection of the "Chops" (or headlands) from erosion, and the intervening harbor from being filled by the eroded material; the whole to be done by means of stone sea walls and jetties, to be built along the beach in front of the bluffs at both headlands; all at a total cost estimated in 1882 at \$60,000 of which \$42,500 has been appropriated up to June 30th, 1893, leaving \$17,500 still to be appropriated to complete the improvement as projected.

A description of the work may be found at page 594, Annual Report of the Chief of Engineers for 1882; page 577 of 1887; page 612 of 1889; and page 811 of 1893.

At the adoption of the present project, the headlands were gradually wearing away and the adjacent parts of the harbor were shoaling. No protection works were in existence.

During the last fiscal year but little work was done except to enter into contracts for the present season's work.

Work under contract was commenced about the beginning of the present fiscal year, and is still being carried on; 608 tons of heavy stone and 467 tons of light stone having been placed in position in about 800 feet length of sea walls and jetties at the West Chop, and about 341 tons of large stone and 215 tons of light stone at the East Chop; up to November 30th, 1893.

As a result of all work up to November 30th, 1893, there has been constructed a sea wall of 450 feet length, and a jetty of 50 feet length, at the East Chop; and a sea wall of 400 feet length, 3 jetties of from 80 to 296 feet length, a wharf, and a short break-water of 60 feet length, at the West Chop.

There was on November 30th, 1893, \$1,803.25 available for continuance of work, which funds will probably be used up before May, 1894; after which further work will await further appropriations.

Wareham Harbor.

The approved project of 1880, as modified in 1887, provides :— for the deepening and widening of the channel from Buzzards Bay to Wareham, so as to obtain 10 feet depth at low water over 250 feet width from the entrance up to Barney's Point, and thence the same depth over 350 feet width up to Wareham ; and for the raising and protecting of Long Beach (the eastern headland of the entrance) so as to prevent the erosion of this Beach and the shoaling of the adjacent parts of the channel and harbor ; all at a total cost estimated in 1887 at \$56,236, all of which has been appropriated up to June 30th, 1893.

A plan of the works may be found at page 586, Annual Report of the Chief of Engineers for 1885 ; and further information at page 550 of 1881, page 542 of 1887, and page 814 of 1893.

At the adoption of the present project, the headland of Long Beach was wearing off and the adjacent parts of the channel and harbor were shoaling ; the channel depth being limited to 9 feet at low water.

During the last fiscal year dredging was continued. During the present year dredging was further continued, 35,874 cubic yards of mud, 1,972 cubic yards of sand stone and gravel and 4 cubic yards of boulders having been removed from 6,118 feet length, and 33 to 40 feet width of cutting and to at least 10 feet depth at low water. Active field work was stopped August 25th, 1893, since which time no further work has been undertaken on this improvement.

As a result of all work up to November 30th, 1893, the channel has been deepened to half width and full depth of 10 feet in its upper portion, and to less width in its lower portions, and the sand spit has been partly protected by catch-sand-fences and brush and stone work.

On November 30th, 1893, there was \$734.26 available for continuance of work, which funds will probably be used up before May, 1894, after which further work will await further appropriations.

New Bedford Harbor.

The approved project of 1887, provides :— for the deepening, widening and straightening of the channel from Buzzards Bay to New Bedford, so as to obtain 18 feet depth at low water over 200 feet width and over its entire length ; all at a total cost estimated in 1887 at \$35,000, of which \$27,500 has been appropriated up to June 30th, 1893, leaving \$7,500 still to be appropriated to complete the improvement as projected.

A description of the works may be found at page 514, Annual Report of the Chief of Engineers for 1888; and a plan of the same in House Ex. Doc. No. 86 of the 50th Congress, 1st Session, and at page 815 of report of Chief of Engineers for 1893.

At the adoption of the present project, the channel was winding and only about 15 feet deep.

During the last fiscal year preparations were made for the continuance of the dredging.

Owing to accidents and delays active field work was not commenced until about November 1st, since which time about 15,316 yards of mud and sand have been removed; and work is still in progress.

As a result of all work up to November 30th, 1893, the straight channel has been completed on its western side, to 15 feet depth and at least 80 feet width over its entire length; while a slightly crooked channel of 80 feet width with 18 feet depth also exists over the same distance, wandering a little from the projected channel.

There was on November 30th, 1893, \$4,075.09 available for the continuance of work, which funds will probably be used up before next June, after which further work will await further appropriations.

Westport Harbor.

The approved project of 1888, provides:—for the improvement of the channel from the Atlantic Ocean up the West branch to Adamsville, and up the East branch to Westport Point so as to secure and maintain a channel depth of 7 feet, at low water over its entire length, by dredging on the “Lion’s Tongue” shoal if necessary; and for the protection of Horse Neck Point (the eastern headland of the entrance) so as to prevent the erosion of this Point and the shoaling of the adjacent parts of the channel and harbor; all at a total cost estimated in 1888 at \$2,000, all of which has been appropriated up to June 30th, 1893.

A description of the work may be found at page 645, Annual Report of the Chief of Engineers for 1889, and at page 818 of 1893.

At the adoption of the present project, Horse Neck Point was gradually wearing away and the adjacent parts of the channel and harbor were shoaling.

During the last fiscal year, in the month of May, 1893, dredging was carried on, 6,500 yards of sand having been removed from 1,086 feet length and 33 feet width of cutting and to a depth of at least 10 feet at low water. No further work has been done up to November 30th, 1893.

As a result of all work up to November 30th, 1893, the headland

has been protected by one jetty, 150 feet long, made of brush and stone; and a channel 33 feet in width and of at least 10 feet depth at low water has been cut entirely across the shoal at the mouth of the east branch of the Westport River.

There was on November 30th, 1893, no money available for the continuance of work.

Further work will await further appropriations.

Canapitsit Channel.

The approved project of 1891, provides: — for the widening and deepening of the present channel (from Vineyard Sound to the Ocean), between the islands of Nashawena and Cuttyhunk, Mass.; so as to secure a depth of 6 feet at low water with a least width of 150 feet, over its entire length; all at a total cost estimated in 1893 at \$9,800; of which \$4,800 has been appropriated up to June 30th, 1893, leaving \$5,000 still to be appropriated to complete the improvement as projected.

A description of the work may be found at page 645, Annual Report of the Chief of Engineers for 1892; and a plan, at page 820, of 1893; and in Ex. Doc., No. 59, of 52d Congress, 1st Session.

At the adoption of the present project, the sand shoals and especially the occasional boulders, made this passage specially dangerous to the life-saving-station boats and other shallow draft row and sail-boats.

During the past fiscal year in the month of June about 1,155 tons of boulders were blasted and removed from an area of about 1,000 feet length and 300 feet width and to a depth of 3 feet at low water, and also about 1,117 cubic yards of hard sand, 944 cubic yards of cobblestones and gravel, and about 1,223 cubic yards of large boulders, were dredged from 1,214 feet length and 33 feet width of cutting, so as to complete a channel way of at least 66 feet and at least 5 feet depth at low water, entirely through this water way from Buzzards Bay to Vineyard Sound. Excepting the removal of a few individual troublesome boulders in July, no further work has been done up to November 30th, 1893.

As a result of all work up to November 30th, 1893, there has been made entirely through this water way, a channel, 300 feet wide and of 3 feet least depth at low water, including within its limits a narrower and deeper channel of 66 feet width and 5 feet least depth at low water.

There was on November 30th, 1893, a balance of only \$250.84 available for the continuance of this work.

Further work will await further appropriations.

Preliminary examinations of the following localities in Massachusetts, with a view to their improvement by the United States were made during the past fiscal year : —

Woods Holl,
Tarpaulin Cove, Naushon Island,
New Bedford.

With recommendations as follows : —

WOODS HOLL. That the locality was worthy of improvement by the general government and that a survey, to cost perhaps as much as \$1,200, should be made to determine the amount and nature of improvement necessary.

TARPAULIN COVE, NAUSHON ISLAND. That the locality was worthy of improvement by the general government and that a survey, to cost perhaps as much as \$1,000, should be made to determine the amount and nature of improvement necessary.

NEW BEDFORD. That the locality was worthy of further improvement by the general government and that a survey, to cost perhaps as much as \$1,000, should be made to determine the amount and nature of improvement necessary.

Wrecks.

During the last fiscal year the following wrecks were removed so as to no longer obstruct the navigation of this district : —

“J. B. Woodbury,” a schooner of 80 tons gross tonnage, from near Life-Saving Station at Monomoy, south end of Cape Cod.

“Bertha J. Fellows,” a schooner of 90 tons gross tonnage, from near Life-Saving Station at Monomoy, south end of Cape Cod.

“Francis Edwards,” a schooner of 214 tons gross tonnage, from the inner harbor of Fairhaven, opposite New Bedford, Mass.

“Geo. S. Tarbell,” a schooner of 525 tons gross tonnage, from about 5 miles southwest of Vineyard Sound Light Ship.

“Sooloo,” a coal barge of 62 tons gross tonnage, from near the bell buoy in Pollock Rip Channel.

“Storm King,” a coal barge of 1,261 tons gross tonnage, from near the bell buoy in Pollock Rip Channel.

“R. A. Allen,” a bark of 576 tons gross tonnage, from Handkerchief Shoal, near the south end of Cape Cod.

“Charlotte Fish,” a schooner of 234 tons gross tonnage, from about 4 miles south of Monomoy Light House, Cape Cod.

A schooner, name unknown, from the channel entrance to Nantucket Harbor, Mass.

A schooner, name unknown, from Edgartown Harbor, about 0.6 miles southeast of Edgartown, Mass.

“Alva,” a steam yacht of 1151 tons gross tonnage, from the middle of Pollock Rip Channel.

A stone schooner, name unknown, from the edge of Shovelful Shoal near southern Cape Cod.

“Nellie V. Rokes,” a schooner of 296 tons gross tonnage, from 0.5 miles southeast of Chatham Light-Saving Station, Monomoy, Cape Cod.

“Rogers,” a schooner of 266 tons gross tonnage, from Handkerchief Shoals about 1.5 miles southwest of Monomoy Point, southern Cape Cod.

Since the end of the fiscal year and up to November 30th, 1893, the following wrecks have also been removed so as to no longer obstruct the navigation of this district : —

7 old wrecks, names doubtful, from Vineyard Haven Harbor.

“Acacia,” a schooner of 31 tons gross tonnage, from about 6 miles southeast of Chatham, Mass.

Preparations are now being made for removing the following wrecks : —

A wreck, name unknown (supposed to be the “John P. Kelsey”) from about 1.5 miles east of Handkerchief Light Ship.

A wreck, name unknown (supposed to be the “G. M. Farnsworth”) from Chatham Roads, Mass.

APPENDIX.

APPENDIX.

[A.]

[See page 5 of this Report, *ante*.]

ARTICLES OF AGREEMENT, MADE THIS THIRTEENTH DAY OF JUNE IN THE YEAR EIGHTEEN HUNDRED AND NINETY-THREE, BY AND BETWEEN THE COMMONWEALTH OF MASSACHUSETTS, ACTING BY ITS BOARD OF HARBOR AND LAND COMMISSIONERS, PARTY OF THE FIRST PART, AND SETH PERKINS AND JOSEPH E. WHITE, BOTH OF BOSTON IN SAID COMMONWEALTH, CO-PARTNERS DOING BUSINESS UNDER THE FIRM NAME OF PERKINS AND WHITE, PARTIES OF THE SECOND PART.

The said parties of the second part hereby covenant and agree with the said party of the first part, to do and complete all the work specified and described in the following specifications for filling with gravel portions of certain streets on the South Boston Flats, all of said work to be done and completed in the manner, and in accordance with and subject to the terms and conditions, in said specifications set forth:—

Specifications.

Said parties of the second part are to furnish all the plant, tools, appliances, labor and materials for filling with gravel, as hereinafter specified, portions of certain streets on South Boston Flats, as follows: D and E streets from the southerly line of Cypher Street to the southerly line of Congress Street, and Cypher, Clafin, Danby, Egmont and Fargo streets and Mt. Washington Avenue from C Street to D Street and from D Street to E Street, also Anchor and Bullock streets from D Street to E Street, reference being had for the location thereof to a Plan on file in the office of the Board of Harbor and Land Commissioners.

The portions of D and E streets to be filled are each 2,400 feet long.

D Street is to be 80 feet and E Street 60 feet wide on top at grade 16.

All the other streets are to be 50 feet wide on top at grade 16.

The aggregate length to be filled of all the 50 feet streets is about 6,700 feet.

The depth of the gravel filling to be about 3 feet.

The top surface of the streets, after the work is completed, to be left smooth and level at grade 16, and of the full width above specified measured at said grade.

The slope of the filling on the sides of the streets to be one and one-half horizontal to one vertical.

The material used for filling to be clean, coarse gravel, free from rocks, large stones or boulders, clay, loam and vegetable matter, and satisfactory in all respects to the Engineer of said Board; and to be deposited, levelled and trimmed in accordance with the lines, grades and directions given by said Engineer.

The amount of gravel required is estimated at about 76,000 cubic yards. The amount to be paid for to be ascertained by measurement in the fill after it has been deposited, levelled and trimmed as aforesaid, and no filling to be paid for which is more than 6 inches outside the prescribed lines, grades and slopes.

Measurements of material in the fill, made for the purpose of determining the amount of compensation due the parties of the second part, to be based on the grade of the surface of the bottom before the work is begun, and the grade of the surface of the filling after the work is completed; but no allowance to be made for any settling or compression of the bottom, or for any shrinkage of the filling.

Preparations for the work to begin at once, and the work to begin as soon as practicable, and to be prosecuted vigorously and without intermission in all suitable weather, and the whole work to be completed on or before July 1, 1894.

The parties of the second part to be responsible for all damages to persons or property arising from or in consequence of the work of filling, or from anything done by them in connection therewith. All injuries to sewers, man-holes, catch-basins and connections to be made good by the parties of the second part.

In all questions which may arise concerning measurements, lines and grades, the decision of said Engineer to be final.

All necessary aid and materials for giving or indicating lines and grades to be furnished by the parties of the second part at their own expense ; and convenient facilities for the inspection of the work to be furnished whenever requested.

All instructions and directions of said Engineer to be strictly observed and followed.

All of the work to be done to the satisfaction of said Engineer, and with such machinery and appliances, and by such methods, as shall be approved by him, and to the acceptance of said Board.

Estimates to be made by said Engineer of the amount of work done and completed up to the end of each calendar month, and payment to be made thereon of ninety per centum of the contract price for such work, as computed by said Engineer ; and the remaining ten per centum to be paid upon the final completion and acceptance of the whole work.

If the parties of the second part refuse or neglect to prosecute the work, or in any other respect fail to carry out the provisions of this contract, said Board may annul the same, and contract anew with other parties, without prejudice to its claim for damages arising from breach thereof.

The word "Engineer" as used herein means the Engineer of said Board of Harbor and Land Commissioners, or his authorized assistant in immediate charge of the work.

The words "parties of the second part" mean the persons contracting to do the work, or their agent in immediate charge of the work.

The word "grade" means the grade above mean low water in Boston Harbor, as fixed and used by said Engineer in the work of improvement on the South Boston Flats.

And the said party of the first part, in consideration of the performance and completion of all of said work in the manner and in accordance with the terms and conditions aforesaid, hereby covenants and agrees to pay said parties of the second part the sum of sixty-three (63) cents for each cubic yard of gravel filling measured in the fill as aforesaid, the same to be in full compensation for all the work and other things done, furnished, performed and completed as aforesaid, and to be paid at the times, and in the manner, and upon the terms and conditions, set forth in the foregoing specifications.

IN WITNESS WHEREOF, on the day and year first above written, the said Commonwealth of Massachusetts, acting by its said Board of Harbor and Land Commissioners, has caused these presents to be signed and delivered in its name and behalf, and the seal of

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the Commonwealth to be hereunto affixed, and has also caused these presents to be approved by its Governor and Council; and the said Seth Perkins and Joseph E. White have hereunto set their hands and seals.

THE COMMONWEALTH OF MASSACHUSETTS,

By HENRY W. SWIFT, } *Harbor and*
JOHN I. BAKER, } *Land*
CHAS. H. HOWLAND, } *Commissioners.*

SETH PERKINS.

[SEAL.]

JOSEPH E. WHITE.

[SEAL.]

COMMONWEALTH OF MASSACHUSETTS.

In Council, June 22, 1893. Approved.

[SEAL OF THE
COMMONWEALTH.]

EDWARD F. HAMLIN,
Executive Clerk.

[B.]

[See page 16 of this Report, *ante*.]

HARBOR AND LAND COMMISSIONERS' OFFICE,
COMMONWEALTH BUILDING, 65 BOWDOIN STREET,
BOSTON, July 8, 1893.

HON. ALBERT E. PILLSBURY, *Attorney General of the Commonwealth of Massachusetts.*

DEAR SIR:—The Board of Harbor and Land Commissioners respectfully submit to you the following question, and request you to give them your opinion upon it for their guidance. The question submitted is as follows:

Are the flats at East Boston belonging to the East Boston Company and the Maverick Land Company, which are surrounded by a sea-wall with two gaps in it, constructed substantially in its present condition before the year 1866, subject to the jurisdiction of the Board of Harbor and Land Commissioners under the provisions of Chapter 19 of the Public Statutes, or are they exempted from such jurisdiction under the provisions of Section 8 of Chapter 19 of the Public Statutes on the ground that the work of filling said area was begun before the passage of the Act of 1866?

The East Boston and Maverick Companies, through their president Mr. John C. Watson and their counsel Mr. Samuel Snow, have submitted at the request of our Board the enclosed statement of their grounds for claiming such exemption.

We desire to ask your attention to the consideration of the point whether, if the said work was begun at the time of the passage of the Act of 1866, under the construction of that statute laid down by the Supreme Court in the case of *Attorney General v. Boston & Lowell R.R.*, 118 Mass. 345, it has been since continuously prosecuted, so that a filling of the flats now can fairly be considered a part of the same work; or whether the prosecution of the old work has been so discontinued since 1866 that a present undertaking of filling the flats in question would be a new work, and would thus require a license from our Board under the provisions of Chapter 19 of the Public Statutes.

The flats and the wall in question are those which are in plain sight in passing between the city proper and East Boston upon the trains of the Boston, Revere Beach & Lynn Railroad Company.

The larger portion of the flats enclosed by this wall belong to the Maverick Land Company, which was formed by the bondholders of the East Boston Land Improvement Company after default,

the last-named Company having acquired its property from the East Boston Company. The rest of the flats in question are still the property of the East Boston Company. The two companies are separate but some of their officers are the same. Mr. Watson is president of both companies. .

Enclosed will be found a descriptive report of the East Boston Company, printed in April, 1888, which contains a lithograph map showing the properties of the two companies in different colors.

Very respectfully,

For the Board of Harbor and Land Commissioners,

HENRY W. SWIFT,
Chairman.

ATTORNEY GENERAL'S DEPARTMENT,
COMMONWEALTH BUILDING,
BOSTON, July 15, 1893.

TO THE HONORABLE BOARD OF HARBOR & LAND COMMISSIONERS : —

In reply to your inquiry concerning the flats at East Boston belonging to the East Boston Company and the Maverick Land Company, I have to say that upon the facts stated in your communication and in the accompanying statement of the East Boston Company, the work of improving the same is, in my opinion, within the exemption of section 8 of chapter 19 of the Public Statutes.

As the lands in question are private property and are not subject, so far as appears, to any special requirement that the work of filling or improving shall be carried on without interruption, the only question appears to be whether the work yet to be done was begun prior to the passage of the statute of 1866. There appears to have been a substantial beginning of the actual work of improvement of a defined tract of flats prior to that time; and unless the work yet to be done thereupon is so distinct from and independent of the work originally begun as to constitute a new and independent work, and not a continuation of the original work, there seems to be no reason to doubt that it is within the exemption. Assuming the statements of fact now before me to be correct so far as material, I do not think it can be assumed that the work yet to be done upon the territory in question is not a part of the work contemplated in the original scheme, which was defined and the execution of which was begun prior to the statute of 1866.

Very respectfully, your obedient servant,

A. E. PILLSBURY,
Attorney General.

[C.]

[See page 17 of this Report.]

AGREEMENT MADE THIS FIRST DAY OF MAY, 1893, BY AND BETWEEN THE COMMONWEALTH OF MASSACHUSETTS AND WENDAL H. WYMAN OF CHELSEA IN SAID COMMONWEALTH.

Said Wyman hereby agrees to break up and remove the three wrecks now lying in the tide-waters of Boston Harbor and located as follows, one near the shore of Chelsea Point in the town of Winthrop, one near the old Elevating Station on the South Boston Flats and one near the head of the Reserved Channel.

After removal the material to be deposited on the filled portion of South Boston Flats as far back from the inclosing sea wall or bulkhead as can be done by the derrick on said Wyman's vessel.

All the work to be subject to the approval and direction of the Engineer of the Board of Harbor and Land Commissioners and to the satisfaction of said Board.

The said Wyman is to furnish at his own cost and expense all the plant, apparatus, materials, appliances, and labor necessary for said work, and to save the Commonwealth harmless from all liability for damages to any person or property caused by or in any way arising from the carrying out of this agreement.

The said work of removal shall be begun at once and shall be prosecuted with due diligence until completion and shall be completed as soon as possible.

Upon the performance of this agreement by the said Wyman to the satisfaction of the said Board of Harbor and Land Commissioners, said Commonwealth agrees to pay to said Wyman the sum of four hundred and sixty-seven (467) dollars, the same to be in full satisfaction for all things furnished and done under this agreement, and for all costs and expenses incurred by him in the performance of the same.

IN WITNESS WHEREOF, on the day and year first above written, the said Commonwealth, acting by its said Board of Harbor and Land Commissioners, has caused these presents to be signed and

delivered in its name and behalf, and the same to be approved by its Governor and Council and the said Wendal H. Wyman has hereunto set his hand.

THE COMMONWEALTH OF MASSACHUSETTS.

By HENRY W. SWIFT, } *Harbor and*
JOHN I. BAKER, } *Land*
CHAS. H. HOWLAND, } *Commissioners.*

WENDAL H. WYMAN, [SEAL.]

In Council, May 4, 1893. Approved.

EDWARD F. HAMLIN,
Executive Clerk.

[D.]

[See page 18 of this Report.]

HARBOR AND LAND COMMISSIONERS' OFFICE,
COMMONWEALTH BUILDING, 65 BOWDOIN STREET,
BOSTON, Sept. 22, 1893.

To the Honorable DANIEL S. LAMONT, *Secretary of War of the United States of America.*

DEAR SIR:—The Board of Harbor and Land Commissioners of the Commonwealth of Massachusetts, in the course of the performance of the duties imposed on them by the laws of that Commonwealth, submit to you the following claim of the said Commonwealth upon the United States, to be repaid the sum of \$7,536.51, expended in behalf of said Commonwealth by its Board of Harbor and Land Commissioners for the removal of wrecks constituting obstructions to navigation, under authority of Chapter 260 of the Acts of 1883 of the said Commonwealth.

Section 1 of said Act is as follows:—

SECTION 1. Whenever a wrecked, sunken or abandoned vessel, or any unlawful or unauthorized structure or thing, is deposited or suffered to be or remain in the tide-waters of this Commonwealth, and in the judgment of the Board of Harbor and Land Commissioners is, or is liable to cause or become, an obstruction to the safe and convenient use of such waters for navigation and other lawful purposes, it shall be the duty of said Board, and said Board shall have power, to remove such obstruction, or cause the same to be removed, in accordance with the provisions of this act.

Section 10 of said Act is as follows:—

SECTION 10. It shall be the duty of said Board of Harbor and Land Commissioners to make application in behalf of the Commonwealth for the reimbursement of any sums expended under this act, which, in the opinion of said Board, might properly be paid by the United States.

We enclose herewith a copy of the last Annual Report of our Board which contains matter relating to the removal of wrecks and claim for reimbursement upon the United States upon pages 6 and 7, and a further report in regard to the removal of wrecks during the year covered by that report on pages 23 and 24. The Board stated in that report that they had in contemplation the making of

a request for such reimbursement by the United States as soon as in their judgment the amount was sufficiently large to ask for.

The expenditures made for the removal of obstructions to international and interstate navigation, and for which in our judgment the United States may properly be asked to reimburse the Commonwealth of Massachusetts now amount, as above stated, to something over \$7,500, and we think it our duty to present this claim to you as being in charge of the harbors of the United States, in order that you may recommend such action to Congress in the matter as you think proper, by way of including this as one of the items in the annual appropriation bill or otherwise.

The expenditures included in the claim are as follows : —

Item 1.

WRECKS OF SCHOONERS "WILLIE LEE" AND "SARAH AND JULIA."

Removed from Edgartown Harbor.

In September, 1883, the Board was notified by the Commissioner of wrecks and shipwrecked goods for Dukes County of the existence of several wrecks in Edgartown Harbor. This matter was referred to Mr. Henry L. Whiting, member of the Board, who visited the locality and reported that two of the five wrecks which he found were liable to interfere with the safe navigation or anchorage room of the harbor. The owners were notified to remove said vessels but failed to do so, and a contract was made with George W. Mudgett dated Feb. 15, 1884, to remove said schooners and their cargoes. The amount paid by the Commonwealth under this contract was \$1,475.00.

Item 2.

WRECK OF SCHOONER "EMILY C. DENNISON."

Removed from Charles River in Boston Harbor.

In May, 1884, the schooner "Emily C. Dennison," loaded with sand, was sunk in the draw-way of the Fitchburg Railroad Bridge on Charles River, causing a serious obstruction to navigation as well as interfering with the passage of trains across said Bridge. The owners were notified to remove said vessel, which they failed to do. On May 28, 1884, the Commonwealth agreed with the Boston Tow Boat Company to pay said Company \$3,500 for the removal of said schooner and cargo to the South Boston Flats. On June 23, 1884, the Boston Tow Boat Company was ordered to deliver to Cyrus L. Harris & Co., all the rigging, fixtures and appurtenances of said schooner in its possession : \$297.30, being the amount received by the Board from the sale of said schooner, was paid into the Treasury of the Commonwealth.

Amount Paid by Commonwealth:

| | |
|---------------------------------------|-------------------|
| Boston Tow Boat Company, | \$3,500.00 |
| Received from sale of vessel, | 297.30 |
| Net cost of removal, | <u>\$3,202.70</u> |

Item 3.

WRECK OF SCHOONER "J. P. ANGER."

Removed from Vineyard Haven Harbor.

On January 12, 1888, a petition was received from O. W. Barry and others for the removal of said schooner from Vineyard Haven Harbor. The owners were notified to remove said vessel, but failed to do so, and a contract was made with Charles E. Davis, April 19, 1888, to remove said schooner for \$975. Mr. Davis abandoned the work and a new contract was made with George W. Townsend, May 28, 1888, to remove said vessel for \$1,500.

Amount paid by Commonwealth:

| | |
|--------------------------------|-------------------|
| George W. Townsend, | \$1,500 00 |
| Advertising, | 3 00 |
| Inspection, &c., | 86 31 |
| Total cost of removal. | <u>\$1,589 31</u> |

Item 4.

WRECK OF SCHOONER "ALADDIN."

Removed from Boston Harbor.

In May, 1891, this vessel, loaded with sand, was sunk in Fort Point Channel, near Mt. Washington Avenue Bridge, having been damaged in passing through the draw of the New York & New England Railroad Bridge. The owners executed a release of all their interests in the vessel, cargo and appurtenances, and she was removed by George W. Townsend under contract with the Commonwealth, dated June 4, 1891, for \$500 and the wreckage.

Amounts paid by the Commonwealth:

| | |
|----------------------------------|-----------------|
| George W. Townsend, | \$500 00 |
| Watching vessel, | 12 00 |
| Total cost of removal, | <u>\$512 00</u> |

Item 5.

CARGO OF SLOOP "STAR."

Removed from Boston Harbor.

In April, 1892, the sloop "Star" with a cargo of stone was capsized on the southerly side of the ship channel in Boston Har-

70 HARBOR AND LAND COMMISSIONERS. [Jan.

bor. The stone was considered an obstruction to navigation, and was removed by George W. Townsend, under contract with the Commonwealth, for \$194.

Item 6.

WRECK OF SCHOONER "LIZZIE WILLIAMS."

Removed from Boston Harbor.

In April, 1892, the schooner "Lizzie Williams" was sunk in the centre of the upper middle channel in Boston Harbor. The owners were notified to remove her but failed to do so, and she was removed by George W. Townsend, under contracts with the Commonwealth dated May 2, 1892 and May 12, 1892, respectively, at a cost to the Commonwealth of \$615.

Amounts paid by the Commonwealth:

| | |
|--|----------|
| George W. Townsend, | \$615 00 |
| Use of boats and damage to hawser, | 60 00 |
| | <hr/> |
| Total, | \$675 00 |
| Received from sale of vessel, | 61 50 |
| | <hr/> |
| Net cost of removal, | \$613 50 |

SUMMARY OF FOREGOING EXPENDITURES.

| | |
|--|------------|
| Wrecks of schooners "Willie Lee" and "Sarah Julia," | \$1,475 00 |
| Wreck of schooner "Emily C. Dennison," | 3,202 70 |
| Wreck of schooner "J. P. Anger," | 1,539 31 |
| Wreck of schooner "Aladdin," | 512 00 |
| Cargo of sloop "Star," | 194 00 |
| Wreck of schooner "Lizzie Williams," | 613 50 |
| | <hr/> |
| Total, | \$7,536 51 |

The Board of Harbor and Land Commissioners have also during the period covered by the above items made other removals of wrecks under the act of 1883, which are excluded from the foregoing claim on the ground that they were for the benefit of local navigation merely, and did not obstruct international or interstate commerce.

I have the honor to be

Very respectfully, yours,

HENRY W. SWIFT,

*Chairman of the Board of Harbor and Land
Commissioners of Massachusetts.*

SUBJECT: Reimbursement, Removal of Obstructions to Navigation.

WAR DEPARTMENT,

File No. 594-N.

WASHINGTON, D. C., October 2, 1893.

SIR:— I have the honor to acknowledge the receipt of your letter of the 22d ultimo, submitting the claim of the Commonwealth of Massachusetts to be repaid the sum of \$7,536.51 expended in behalf of the Commonwealth by its Board of Harbor and Land Commissioners, for the removal of wrecks constituting obstructions to navigation, under authority of Chapter 260 of the Acts of 1883 of the Commonwealth of the State, which claim you submit with the request that it may be laid before Congress to be included as one of the items in the annual appropriation bill or otherwise.

In reply I beg to quote for your information the following report of the Chief of Engineers, dated the 26th ultimo, in the matter:

“ Under provisions of Section 4 of the Act of Congress approved June 14, 1880, the duty of causing the removal of wrecks obstructing or endangering navigation devolves upon the Secretary of War, and he is authorized to make requisition upon the Treasury for the expenses of such removals. This law had been in existence three years at the time the act of the Commonwealth of Massachusetts was passed under authority of which the action herein mentioned was taken, and it would seem that the authorities of the State should have been cognizant thereof.

“ Congress having exclusive control of this subject, and having passed a law making all necessary provisions in regard thereto, I am of the opinion that the State of Massachusetts has no legal or equitable basis for the claim herein recited, and I recommend that the Board of Harbor and Land Commissioners be advised that it is not proper for the War Department to recommend any action in the premises to Congress.”

Very respectfully,

DANIEL S. LAMONT,
Secretary of War.

HENRY W. SWIFT, ESQ.,
Chairman Board of Harbor & Land Commissioners, Commonwealth of Massachusetts, 65 Bowdoin Street, Boston, Mass.

HARBOR AND LAND COMMISSIONERS' OFFICE,
COMMONWEALTH BUILDING, 65 BOWDOIN STREET,
BOSTON, Oct. 5, 1893.

HON. DANIEL S. LAMONT, *Secretary of War of the United States.*

DEAR SIR:— The Board of Harbor and Land Commissioners of Massachusetts have the honor to acknowledge the receipt of your

letter of the 2nd of October, in which you decline to recommend to Congress an appropriation to repay the sum of \$7,536.51, expended by the Commonwealth of Massachusetts for the removal of wrecks constituting obstructions to navigation.

The extract from the report of the Chief of Engineers quoted in your letter declares the policy of the United States to be to claim and exercise exclusive jurisdiction in the removal of wrecks. We therefore respectfully recommend that the statutes of the United States be amended so as to allow immediate action in the removal of wrecks to be taken in the case of an emergency. The provisions of Section 4 of the Act of Congress, approved June 14, 1880, referred to in your letter, require 30 days notice by publication and a further time sufficient to allow the owner to remove the wreck after such notice, so that in practice it is found impossible for the United States authorities to begin the removal of a wreck sooner than 40 days after receiving notice of the obstruction.

This power is in many cases obviously insufficient, and the United States authorities have in several instances been obliged to leave to our Board the removal of wrecks where immediate action was necessary.

The case of the "Lizzie Williams," which occurred last year, and which is mentioned in our Report enclosed in our former letter to you, is an illustration of this. In that case on being notified that the vessel was sunk in the ship channel of Boston Harbor where the ocean steamers and other vessels were passing out and in daily, we found on application to Col. Mansfield, the engineer officer representing the United States in this District, that he was powerless to act without complying with the terms of the Act of 1880, and it was found that the only way to get the vessel promptly out of the channel was for our Board to proceed at once under the authority of the state law, which we did.

Another illustration is the case of the schooner "Emily C. Denison," which was mentioned in our previous letter to you. This vessel loaded with sand was sunk in the draw-way of the Fitchburg Railroad Bridge over the Charles River, causing a complete obstruction to navigation at that point and preventing the passage of trains across the bridge. The statement of this case is sufficient to show how completely inadequate the present provisions of the United States statute are upon this subject, which would have required a delay of from 30 to 40 days before the United States authorities could lawfully remove this vessel from the draw-way.

We therefore respectfully urge that, if the United States desires to reject the assistance of this Commonwealth in performing its duties in regard to the removal of wrecks, it should amend its laws so that these duties may be promptly and efficiently performed by its own officers.

Very respectfully yours,
For the Board of Harbor and Land Commissioners
of Massachusetts,
HENRY W. SWIFT, *Chairman.*

[E.]

[See page 40 of this Report.]

MASS. RESOLVES,

Chap. 148, March 26, 1793.

COMMONWEALTH OF MASSACHUSETTS.

IN THE HOUSE OF REPRESENTATIVES, March 22^d, 1793.

Whereas the Honorable Walter Spooner Esq one of the Overseers of the Marshpee and Herring pond Tribes of Indians and Joseph Nye Esq one of the Guardians of said Indians have by their Memorial represented to this Court that they are unable to preserve the property of said Indians for want of proper and certain boundaries being kept up between the land belonging to said Tribes and the several Towns and Individuals adjoining the same, and they on behalf of said Indians and Josiah Samson, Josiah Fuller, Ebenezer Crocker, Nye Jones, Matthew Briggs, William Fuller and Cornelius Samson being a major part of the proprietors of land adjoining said Indian land and the Selectmen of the Town of Barnstable in behalf of said Town have mutually requested this Court to appoint a Committee to perambulate and settle the boundary lines between the parties.

Resolved that the Honorable George Partridge Esquire of Duxbury in the County of Plymouth, Samuel Smith of Dartmouth in the County of Bristol and Nathaniel Hammond of Rochester in said County of Plymouth be and hereby are appointed authorized and empowered to perambulate and settle the true boundary lines between the lands of the said Marshpee tribe of Indians and the proprietors and Town aforesaid and also to run and settle the line between the land of the said Herring pond tribe and the proprietors of land adjoining thereto, or of said such proprietors as shall concur with said Committee in running and settling said line. The doings of the said Committee certified under their hands to this Court and accepted & recorded in the Office of the Register of deeds of the County where such lands lay to be definite and conclusive between the parties.

Sent up for Concurrence

DAVID COBB, *Spk*

In Senate March 26, 1793.

Read and Concurred,

SAM^L PHILLIPS *Prsd*

Approved John Hancock.

MASS RESOLVES,

Chap. 2. Jan'y 22, 1794.

COMMONWEALTH OF MASSACHUSETTS.

IN SENATE, Jan'y 21st, 1794.

Whereas it appears, from the representation of George Partridge Esq^r that by reason of the death of Samuel Smith, the committee appointed by a Resolution of the General Court of the 26th of March last, for perambulating & settling the boundary line between the lands of the Marshpee tribe of Indians & the several Towns & Individuals adjoining the same, are unable to compleat the business of their commission.

Resolved that Isaac Thompson Esq be, & hereby is appointed on the committee aforesaid in the room of the said Samuel Smith deceased and authorized in conjunction with George Partridge Esq & Nath^l Hammond to do & perform all the business designated in the Resolution aforesaid.

Sent down for concurrence

SAM^L PHILLIPS *Prsdt*

In the House of Representatives Jan'y 21, 1794

Approved Jan'y 22, 1794 Read and Concurred

Sam^L AdamsEDWARD W. ROBBINS *Speaker*.

MASS RESOLVES,

Chapter 5, January 22, 1795.

To the Hon^{bl} General Court of the Commonwealth of Massachusetts.

We The Subscribers being Appointed & Commissioned by a Resolve of the 22nd of March A D 1793 & by another Resolve of Jan'y 21^d A.D. 1794 to perambulate and settle a boundary Line between the lands of the Mashpee Tribe of Indians And the proprietors and Town of Barnstable — having notified and fully heard all persons and parties Interested in the Settlement — have fixed and determined the said lines and bounds to be as followeth Viz,

Beginning at a Stake well known by the name of the five mile Stake which is a Corner bound betwixt the Towns of Sandwich and Barnstable — said stake stands about five Rods southeast of a deep miry bottom, thence Running south thirty two degrees and three quarters East one hundred and eighty rods to the middle of a small bushe swamp lying by Chopchase field (so called) thence south twentyone degrees east one hundred and ninety one Rods to a stake and stones by the side of an hill about two Rods southwest of a miry swamp — thence south thirty three degrees west one

76 HARBOR AND LAND COMMISSIONERS. [Jan.'94.

hundred and ninety four Rods — to a Stake by the side of a fence — thence West twenty nine degrees south thirty Rods to a brook or River Called Somtuite alias Contuite River a little below a pond called Somtuite alias Contuite pond — thence down stream by the middle of said River to paupanesset bay — thence by said Bay to the sea — leaving two Islands — of salt marsh or flats called Thatch Islands lying in said bay to appertain and belong to the district of Mashpee — Witness our hands the seventh day of october A D 1794.

Ge^o Partridge
Isaac Thomson
Nath^l Hammond

In Senate Jan^y 21^d 1795. Read & accepted & Ordered that the same be entered on the Records of the Commonwealth

Sent down for concurrence

SAM^l PHILLIPS *Prsdt*

In the House of Represen^{ts} Jan^y 22^d 1795

Jan^y 22, 1795

Read and Concurred

Approved Samuel Adams

EDW^d W ROBBINS *Spkr*

COMMONWEALTH OF MASSACHUSETTS.

OFFICE OF THE SECRETARY, BOSTON, November 1, 1893.

I certify the foregoing to be true copies of the original papers in the custody of this Office.

Witness the Seal of the Commonwealth,

[SEAL]

ISAAC H. EDGETT,
Deputy Secretary.

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REPORT

OF THE

Board of Metropolitan Park Commissioners.

JANUARY, 1894.

BOSTON :
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

Commonwealth of Massachusetts.

OFFICE OF METROPOLITAN PARK COMMISSION,
111 AND 112 AMES BUILDING, BOSTON, Dec. 15, 1893.

To the Honorable Senate and House of Representatives in General Court assembled.

The Board of Metropolitan Park Commissioners, appointed under the provisions of chapter 407 of the Acts of 1893, present the following report : —

The members of the Board were appointed on the 8th of July, and the Board organized immediately thereafter, upon the 17th of July. On the 29th of July H. S. Carruth was appointed secretary. His report for the portion of the year which has since elapsed is herewith submitted.

In the report of the temporary Board of Metropolitan Park Commissioners submitted to the Legislature of 1893 (House Document No. 150) a scheme of public reservations within what was then referred to, and has since been incorporated, as the Metropolitan District was set forth in detail. In accordance with the recommendations contained in that report an act for the appointment of a permanent Board of Metropolitan Park Commissioners was reported and passed practically in the form in which it was drafted by the Commission.

Under these circumstances there would appear to be at this time no especial occasion for any elaborate report setting forth the purposes of the Commission, or a scheme of public reservations within the Metropolitan District. It is the understanding of the Commissioners that they were appointed to carry into effect the recommendations made a year ago. The scheme of reservations included in those recommendations was set forth in the elaborate reports of the consulting landscape architect,

Mr. Eliot, and the secretary of the temporary Board, Mr. Sylvester Baxter. It seems unnecessary now to repeat what was then sufficiently said.

Acting upon this view of the purpose of the Legislature in creating the present Board, the Commissioners, as soon as circumstances warranted their so doing, proceeded to carry out the plans and recommendations of the previous Board. In view of the character of the work to be done and the engineering and legal proceedings involved, the progress made has necessarily been slow. It will be remembered that in the report of 1893 the Commissioners called attention to the fact that the scheme proposed involved two classes of acquisition: one exemplified in the case of the Middlesex Fells and the Blue Hill forest, where it was possible to proceed with comparative rapidity; the other, exemplified in the cases of the Revere and Nantasket beaches and the Charles River basin, involving elaborate engineering plans and difficult questions of law. In the cases of this class the expense would necessarily be large, as well as difficult to estimate in advance, and progress correspondingly slow.

Even the acquisition of the Middlesex Fells and the Blue Hill region has necessitated careful surveys, which could be made under favorable circumstances only during the colder season when the trees are stripped of leaves. Those surveys have been in steady progress, and, as will appear from the accompanying report of the secretary, all the steps requisite to the acquisition of both of these reservations either have been taken or will be taken at an early day. Together they will include an area of not less than 4,850 acres — 950 in the case of the Middlesex Fells, and 3,900 in the case of the Blue Hills; and it should also be borne in mind in regard to the former reservation that the water boards of Malden, Melrose and Medford and the town of Stoneham own within and adjacent to this area about 1,600 acres additional, which will practically increase the reservation within Middlesex Fells to 2,550 acres.

The group of trees in Belmont and Watertown commonly known as the Waverly Oaks, but more properly the Beaver Brook Oaks, has been acquired. The Commissioners were enabled in this case to act with greater quickness owing to the lim-

ited size as well as simple character of the taking; and their action was greatly facilitated by the liberality of the widow of the late Elisha Atkins of Belmont, and her son, the present Edwin F. Atkins, who contributed the large sum of \$12,500, more than half its entire cost, towards the preservation of this most interesting locality, thus setting a precedent which it is hoped and believed wealthy residents in other localities will not be slow to follow.

Steps have also been taken towards acquiring on the Revere Beach certain holdings of a preliminary character. These it is proposed to follow by other takings as rapidly as the complicated nature of the problem in that case will permit.

No steps have as yet been taken towards the acquisition of Nantasket Beach or its adjuncts.

Under these circumstances, the work thus far done having of necessity been mainly of a preliminary nature, the Commissioners do not consider it necessary now to submit any detailed report, or to make further recommendations, or to ask for increased powers, or that additional funds should be put at their disposal. It has seemed to them desirable to proceed slowly and in a sure, conservative manner, rather than to endeavor to make a large and, possibly, a more or less deceptive showing of work already done. Evidence is abundant that the idea of adequate public reservations has taken firm possession of the popular mind; and especially is this the case among the inhabitants of the Metropolitan District. In this respect the magnificent Boston park system has done a great educational work. That this idea will grow steadily, and now calls for no nervous action or emphatic utterance from them, the members of this Board are well satisfied. They further think that the means already placed at their disposal by the action of the last Legislature will suffice to ensure during the coming year the carrying out in its larger and more general aspects of the scheme submitted a year ago. The details of that scheme can then be considered and provision made for them. Accordingly, with the coming spring, the Commissioners hope to open to the public at least two large reservations, one in the Middlesex Fells and one in the Blue Hill region. When the inhabitants of the Metropolitan District once appreciate the advantage and enjoyment to be derived from those reservations,

the Commissioners feel little apprehension lest additional power and the means requisite to carry the entire scheme into early effect will not readily be given them.

It is possible, however, that the proceedings now being taken may have so far developed before the adjournment of the present Legislature that the Commissioners will desire to submit a supplementary report. This will be a matter for the landscape architects of the Board to decide upon. Their reports, rather than the formal official reports of the Board or of its secretary, shall, it is proposed, hereafter set forth in a continuous series, illustrated by maps, diagrams and plates, the gradual development of the great and beneficent scheme they have conceived. Of this series the admirable report of Mr. Charles Eliot, submitted a year ago, will constitute the initial number, and it is upon the lines set forth in that report the Commissioners are now working; to that report, therefore, the Legislature is referred for information. Should further developments in the immediate future call for it, a second report of the series will be forthcoming before summer.

Full detailed information as to the course otherwise pursued by the Board will be found in the accompanying reports of its secretary and of the landscape architects.

All of which is respectfully submitted.

CHARLES FRANCIS ADAMS.

PHILIP A. CHASE.

WILLIAM B. DE LAS CASAS.

ABRAHAM L. RICHARDS.

WM. CHASE.

REPORT OF THE SECRETARY.

HON. CHARLES FRANCIS ADAMS, *Chairman, Metropolitan Park Commission.*

SIR:—In submitting my first report as the secretary of the Commission it seems proper to rehearse very briefly the facts connected with my term of office. Appointed on the twenty-ninth day of July last, I assumed the duties of this position on the first day of August, thus making only a little more than four months as the time to be covered by this report.

The first matter of importance was the organization of the office, the development of the system for the conduct of its business and the arrangement of the duties of its subordinates, as well as the selection of permanent offices. This was quickly effected. The necessary subordinates were chosen under the civil service rules and suitable offices were selected in the Ames Building. The question of the employment of civil engineers and surveyors for the determination of the boundary lines of the several proposed reservations was at once taken up and, so far as was practicable, the services of local surveyors were engaged. This was done in order that the Commission might avail itself of the advantages of the familiarity with local and property boundaries which, in most cases, these local surveyors possessed.

The work was pushed with the utmost rapidity, and while in some cases obstacles were encountered which caused unlooked-for delays, yet substantial results have been accomplished.

On November 3 the work of surveying and determining the boundaries of the south section of the Beaver Brook Reservation had been completed and the Board passed the necessary act of taking, followed on the 1st of December by the taking of the north section, which together comprise the Beaver Brook Reservation, with an area of 58.61 acres.

On December 12 the first and most important of the four sections of the Blue Hills Reservation, containing 932½ acres, was taken, and the work of preparation for the taking of the three remaining sections is practically completed.

The Middlesex Fells has presented many more difficulties to be overcome than has been the case in the Blue Hills or at the Beaver Brook Reservation. The existence of the large population upon at least three sides of the proposed reservation has rendered the decision as to where the boundary line should be run very difficult and requiring great care and judgment in its determination. The wish not to intrude upon desirable building land of the cities and towns surrounding this wild tract, at the same time so shaping the taking that it shall be in harmony with the purposes for which it is to be established, has led to the running of several alternative lines, and the final determination of the boundary having now practically been completed, the taking can be made at an early date.

At Revere Beach have been encountered the greatest obstacles with which the Commission will have to deal in any of the localities in which it is intended to establish open spaces. The condition of this beach, rapidly growing more serious with every year, is such at the present time as to render impossible the immediate acquiring of the beach itself in its entirety. A plan has been made and will shortly be submitted which comprehends within its lines about one-third of the entire length of the beach. This is based upon and is a part of a general scheme which eventually will include the entire beach from the existing pier at Crescent Beach to and including the Point of Pines. Just how much more can be taken in the near future and where the ultimate limits of the reservation will be placed are questions for future determination, and largely depend upon the measure of co-operation which is extended to the Commission by the land-owners upon the beach.

Complete preliminary plans have been made of the Stony Brook Reservation, previously known by the name of Muddy Pond Woods, and little more remains to be done than the preparation of the necessary plans for record and the passing of the papers of taking. No difficulty appears to present itself in connection with this reservation which should delay beyond a few weeks its completion.

In connection with several of these reservations it will be necessary to provide proper means of ingress and egress by further takings, small in extent and inexpensive in character. That the expenditure of money which has been made and is to be made shall be of the largest possible benefit and use to the people of the Metropolitan District it is necessary that means should be taken to acquaint the public with the easiest and most expeditious means of reaching these various reservations from the different parts of the district. It is my intention, if it should meet with the approval of your honorable Board, to prepare and issue for public use and guidance a brief pamphlet upon each of the reservations, containing maps, showing the means of access and the main paths which traverse the larger reservations.

In spite of the fact that the Blue Hills and the Middlesex Fells, especially the former, have been for years visited by those who have by accident acquired a knowledge of their beauties, the people at large have but small knowledge of the charming spots of natural beauty possessed by these two remarkable tracts of land.

The larger part of the land necessary for these principal reservations having either been taken or about to be taken, the question which becomes the important one during the ensuing year is as to their management and care. It is very important that these beautiful spots shall be made readily accessible to the public; that while for several years yet to come no road building or other expensive work need to be undertaken, it is very desirable—in fact, it is absolutely necessary, if proper security is to be had against the terrible devastation of forest fires—that a reasonable amount should be expended in the very near future in the cleaning up of the woods themselves. This is particularly necessary in the Blue Hills Reservation, but applies also, with less force, to the Middlesex Fells and Stony Brook Reservations. In these forests, which have never received any attention, there exists upon the ground an immense amount of fallen wood in various stages of decay. It is this material which affords the fuel which causes the terrific heat in the forest fires. The quick burning of leaves in the autumn of the year seldom does much serious injury, but in the spring of the year, when the high

winds of March have dried the surface of the ground, these sticks and fallen trees, overlying each other in the best possible manner to cause quick-spreading fires, have done and will continue to do, unless immediately checked by proper precautions, irreparable damage to the woods.

Illustrating this point, I would respectfully call attention to the tremendous damage done by the forest fire in the Blue Hills Reservation so short a time ago as the spring of 1893. Hundreds of acres of valuable and beautiful woodlands were utterly ruined, necessitating their being cut to the ground, leaving scarcely a single tree where one short year ago existed a beautiful forest.

Even more dangerous than the state of affairs which I have just outlined as causing destructive fires in most of these woods, is the condition brought about by these same forest fires. The death of the trees by the forest fire may not be immediate. A year or perhaps two years may ensue before the trees finally give up the unequal struggle and die. They remain standing, their limbs largely intact, presenting every opportunity for another and still more disastrous fire. It is absolutely indispensable that these areas of dead trees should be removed at as early a date as is possible, and that also the ground under the woods now living, as yet unvisited in recent years by severe forest fires, should be put in such a condition as to reduce to the minimum the danger of future conflagrations.

I would respectfully suggest that your honorable Board authorize the expenditure of an amount necessary to remove from the reservations this imminent danger of fire. The employment of men now idle would at this time be opportune and the means of preventing the destruction of property to an amount many times the sum required to accomplish it. This would be work not made for the occasion, but necessary, and in its doing not only would the public receive the full equivalent of the money spent, but, as I have before stated, it would be the means of preventing serious losses in the future.

With the cleaning of the woods and the providing of proper means of ingress and egress, the opening of the disused wood roads, rendering them available to pedestrians and equestrians, the occasional repairing of existing boundary fences, and the erection of new fences upon the boundaries of the reservations

where at present none exist, little remains that is absolutely necessary to be done at the present time. It may safely be left to the future to determine when it shall be desirable to supplement the already existing roads by more substantially constructed carriage roads, and it will be far better to wait until the topographical surveys shall determine the proper location of such roads.

Respectfully submitted,

H. S. CARRUTH,

Secretary.

FINANCIAL STATEMENT.

RECEIPTS AND EXPENDITURES FROM AUG. 1, 1893, TO JAN. 1, 1894.

Office Expenses, Salaries, etc.

| | |
|--------------------------|-------------|
| Appropriation, | \$10,000 00 |
|--------------------------|-------------|

Expenditures.

| | | |
|---------------------------------------|------------|----------|
| Salaries, | \$1,296 67 | |
| Office fittings, | 185 07 | |
| Rent of office, | 585 52 | |
| Stationery, | 269 41 | |
| Plans surveying, | 4,407 99 | |
| Landscape architects, | 1,500 00 | |
| Legal services, | 525 00 | |
| Sylvester Baxter, services, | 200 00 | |
| Telephone, | 95 45 | |
| Carriage hire, | 85 50 | |
| Maps and books, | 41 00 | |
| Tools, etc., | 116 44 | |
| Contingent expenses, | 289 41 | |
| | | 9,597 46 |
| Balance of appropriation, | | \$402 54 |

REPORT OF THE LANDSCAPE ARCHITECTS.

HON. C. F. ADAMS, *Chairman of the Metropolitan Park Commission.*

DEAR SIR : — In a professional report addressed in 1892 to the preliminary or advisory Metropolitan Park Commission, Mr. Eliot (who has since become a member of our firm) reviewed the hills, streams and coasts of the neighborhood of Boston and sketched in colors, on a map, the areas which it seemed to him should be reserved for public use through metropolitan as distinguished from municipal action. No attempt was made to define the exact boundaries of any of the reservations proposed. At the time of writing it was not decided that an executive Metropolitan Park Commission would ever be established.

Your Commission having been created and organized, you asked us to give our attention to the definite demarcation of five of the reservations proposed in Mr. Eliot's report, namely, the reservations at the Blue Hills, Middlesex Fells, Muddy Pond Woods (or Stony Brook), Revere Beach and Beaver Brook. You directed us to prepare projects for boundaries which would show alternative or maximum and minimum limits, wherever possible, in order that a choice might be open to your Board when the estimates of the probable cost of the lands to be taken should be compiled by you. Six parties of surveyors were placed at our service by your direction, and during the months of September, October and November we gave much time, in conjunction with the surveyors, to the careful study of the problem put before us. On Dec. 15, 1893, we sent to your office the last of a series of eight surveyors' maps, drawn to a scale of two hundred feet to an inch, upon which we had indicated by a continuous green line what seemed to us to be the most desirable boundary for each of the

proposed reservations. By a broken green line we also indicated such possible alternative positions for the several boundaries as seemed worthy of consideration. In accompanying reports we explained the proposed boundaries in detail.

In accordance with your request, we now submit the following memoranda of the general principles upon which we have worked in determining the lines lately submitted to you, as just described : —

First. The boundaries of the proposed reservations should, if possible, be established so as to include all lands belonging to the same topographical unit and exhibiting the type of scenery characteristic of each reservation. Obviously, a public domain is not well bounded if it includes only half a hill, half a pond or half a glen. Neither is it well bounded unless it includes such contiguous lands as form the essential framework of the hill scenery, the pond scenery, the glen scenery, or whatever other type of scenery it is desired to preserve. For example, it is desirable to include in the Blue Hills Reservation all the hills of the high range down to the base of their steep slopes. Similarly, it is desirable to include in the Stony Brook Reservation all the uplands which enclose the glen or valley of that stream. To city men it is most refreshing to find themselves in what appears to be a wilderness of indefinite extent. This impression cannot be enjoyed unless the boundary of a valley reservation is established beyond the summits of the enclosing hills.

Second. The boundaries of the proposed reservations should be, if possible, established upon public streets or roads, or upon lines drawn where roads may ultimately be built upon good grades.

The reasons for this principle are many. It is obvious that the back fences of private lands cannot make a handsome boundary for a public domain of any description. It is obvious that private lands abutting directly upon public lands will be much more liable to trespass than they would be if a public roadway separated the two. Private land in the position described is a nuisance to the public, while the public is likely to be a nuisance to its owner. Speaking generally, the policing and the general administration of a public reservation is greatly facilitated when the boundary is a road. Still more impor-

tant is the consideration that if the private lands which adjoin the reservation are provided with a road frontage which looks upon the public domain they will eventually be greatly increased in attractiveness and value.

These two principles taken together explain most of the possible boundary lines submitted for your examination. Where existing streets meet the requirement of the first principle, they have been adopted as the boundary, as, for example, at Washington Street, Melrose, and Blue Hill Street, Canton. Where it has been necessary to devise new roads to serve as boundaries, this has been done, with due respect to the first principle, with due regard for grades and curves, and with care to exclude improved lands, and lands which will ultimately become especially suitable for building sites.

It remains to mention three classes of exceptions to the principle of the existing or proposed road boundary.

In some places it has proved necessary, for the sake of economy, to exclude from the reservations, by arbitrary lines, improved lands which would have been included under our first principle had they not been occupied by buildings: as, for example, at two places on Washington Street in Melrose, and again at Summit Street in Malden.

In some places the reverse operation has proved desirable, and tracts of wild land which would have been excluded under our second principle have been included in the reservation by arbitrary lines, because some subordinate yet still important element of the scenery of the reservation could by so doing be preserved: as, for example, along the north side of the valley of Furnace Brook in the Quincy section of the Blue Hills Reservation, where there has been included the face of a ridge which is in view from the whole basin of the brook, although the road must here be within the reservation in the valley of the brook. Houghton's Pond has been shown as included in the Blue Hills Reservation for the same reason. It is not an essential part of the hill scenery, but it is an exceedingly valuable addition thereto.

In some places, after a road boundary had been studied and mapped, the line was found to lie in such relations to adjacent or parallel township boundaries that rather than leave parts of townships isolated from the main body it was deemed best to

adopt the township boundary as the boundary of the reservation. It was in this way, for example, that the township boundary which divides Quincy from Randolph and Braintree came to be suggested as the southern boundary of the Blue Hills Reservation. Another variety of this exceptional kind of boundary is illustrated in several places about the Fells, where arbitrary lines have been drawn so as to connect the new reservation with pre-existing watershed reservations without leaving wedges or islands of private lands between the two.

The total length of alternative lines thus studied, mapped and described by us for your consideration is about thirty miles.

Yours respectfully,

OLMSTED, OLMSTED & ELIOT.

SEVENTH ANNUAL REPORT

OF THE

MASSACHUSETTS BOARD OF REGISTRATION IN DENTISTRY.

FOR THE YEAR 1893.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

**MEMBERS OF THE MASSACHUSETTS BOARD OF
REGISTRATION IN DENTISTRY, 1893.**

| | | | | | | |
|---------------------------|----------|----------|----------|----------|----------|---------------------|
| J. SEARLE HURLBUT, | . | . | . | . | . | SPRINGFIELD. |
| E. V. MCLEOD, | . | . | . | . | . | NEW BEDFORD. |
| GEO. E. MITCHELL, | . | . | . | . | . | HAVERHILL. |
| JOHN F. DOWSLEY, | . | . | . | . | . | BOSTON. |
| THOS. J. BARRETT, | . | . | . | . | . | WORCESTER. |

Commonwealth of Massachusetts.

BOARD OF REGISTRATION IN DENTISTRY.

To His Excellency **FREDERIC T. GREENHALGE**,
Governor of Massachusetts.

SIR : — In accordance with the provision of section 6 of the act establishing the Board of Registration in Dentistry, we herewith have the honor to submit to you our seventh annual report.

The unexpired commission of L. D. Shepard was filled by the appointment of Thomas J. Barrett of Worcester, and at its expiration he was reappointed as member of the Board by His Excellency William E. Russell for three years and qualified according to law.

At the June meeting of the Board J. Searle Hurlbut of Springfield was re-elected president, and E. V. McLeod of New Bedford was re-elected secretary.

Meetings have been held in Boston for examination in June and December. At the June examination there were fifty candidates, seven of whom appeared for the second time. Thirty-four were granted certificates.

At the December examination there were twenty-two new candidates and nine who appeared for the second time. Thirteen were granted certificates.

It seems to be generally supposed that the Board of Registration shall prosecute all persons violating the law. This is not the case. It is the duty of every dentist to see that the law is enforced for the benefit of the public, and it is the duty of the prosecuting attorney for each county to prosecute every person violating the law, on receipt of information of such violation and the necessary evidence to establish the fact.

All persons now practicing dentistry in this State who have not received a certificate from the Board, in pursuance of the act, are violating the law, and are subject to arrest and a fine of \$50 or three months imprisonment in the county jail for each and every offence.

STEPS TO BE TAKEN TO PROSECUTE.

Positive evidence of the violation of the law must be first obtained. This, with a formal information and list of witnesses, should be given the prosecuting attorney, who will then be in duty bound to prosecute the case.

If all dentists would feel sufficiently interested to take steps in this matter the Board would be very much aided and the public benefited.

A question has arisen in the dental societies as to the feasibility of granting certificates to non-graduates of colleges. The decision of this matter does not come under the jurisdiction of the Board, and we would suggest to those who think non-graduates should not receive a certificate to recommend an amendment to section 4 of the law, rather than censure the Board, who must grant them according to satisfactory qualifications.

The next meeting of the Board for examination will be held in Boston in June, 1894.

A list of those registered during the year is appended.

The receipts and expenditures of the Board since the last report are as follows : —

RECEIPTS.

| | | |
|---|-------|------------|
| Balance in State treasury Jan. 1, 1893, | . . . | \$505 64 |
| Fees for examination, June, 1893, | . . . | 430 00 |
| Fees for examination, December, 1893, | . . . | 220 00 |
| | | <hr/> |
| | | \$1,155 64 |

EXPENDITURES.

| | | |
|---|-----------|----------|
| Expenses to Jan. 1, 1893, | | 783 46 |
| | | <hr/> |
| Balance in State treasury Jan. 1, 1894, | | \$372 18 |

All of which is respectfully submitted.

J. SEARLE HURLBUT, *President.*

E. V. McLEOD, *Secretary.*

Dec. 31, 1893.

ALPHABETICAL LIST OF DENTISTS

REGISTERED BY EXAMINATION SINCE JAN. 1, 1893.

| | |
|---|-------------------------|
| ARNOLD, EUGENE E., | Boston. |
| ARVEDSON, ERNST S., D.D.S., | Boston. |
| ASHLEY, FRED. M., | Boston. |
| BARTON, BURNHAM DE F., | Boston. |
| BEALE, WALLACE E., D.D.S., | Everett.. |
| BEANE, JOHN H., D.D.S., | Natick. |
| BOYLSTON, JOSEPH, D.D.S., | Boston. |
| CAMPBELL, MURDOCH S., | Lynn. |
| CAPWELL, C. G., D.D.S., | , Boston. |
| CHASE, ARTHUR L., | Sullivan, Me. |
| CLARK, EDWIN N., D.D.S., | Stafford Springs, Conn. |
| CLARK, SYLVESTER W., D.D.S., | Providence, R. I. |
| COAR, FIRMAN W., D.D.S., | Cambridge. |
| CONSTANTINEAU, GEO. J., D D S., | Lowell. |
| CRANE, CHAS. W., | Lynn. |
| DARLING, HORACE G., | South Ryegate, Vt. |
| DOUGLASS, BENJ. H., D.D.S., | Philadelphia, Pa. |
| FAUTEUX, HOMERE G., | Boston. |
| FOGG, FRED'K S., D.D.S., | Roxbury. |
| FURFEY, JAS. AUSTIN, | Beverly. |
| GIBSON, GEO. B., D.D.S., | Marlborough. |
| GLIDDEN, JOHN E., | Boston. |
| HALL, CHAS., D.D.S., | Roxbury. |
| HANSON, ARTHUR E., | Salem. |
| HAYDEN, THOS. B., | Boston. |
| HOWARD, WM. R., | Cambridge. |
| MAYERS, FRANK R., D.D.S., | Worcester. |
| MORAN, THOS. H., D.D.S., | Boston. |
| NASON, DAN'L A., | Wenham Depot. |
| OBER, FRED'K A., | East Cambridge. |
| O'HALLORAN, WM., D.D.S., | Weymouth Centre. |
| PEARMAN, WM. S., D.D.S., | Jamaica Plain. |
| PERCIVAL, WM. FRED., | Boston. |
| PIERCE, MYRON E., | Hyde Park. |
| POST, PETER J., | East Boston. |

| | |
|--|-----------------|
| RAY, JOHN Z., D.D.S., | Bradford. |
| ROLLER, OLIN P., | Worcester. |
| SMITH, ARTHUR G., | Boston. |
| SMITH, JOHN J., D.M.D., | Boston. |
| SNOW, WALLACE, D.D.S., | Lexington. |
| THAYER, LUCIUS K., | Worcester. |
| TRUE, GEO. L., D.D.S., | Boston. |
| WILKINSON, FRANK M., D.M.D., | Boston. |
| WOLFE, OLIVER P., | North Weymouth. |
| WOOD, CHAS. R., D.D.S., | Brockton. |
| WALSH, ANDREW S., | Cambridge. |
| WALTON, WM. J., | Dorchester. |

EIGHTH ANNUAL REPORT

OF THE

**MASSACHUSETTS BOARD OF REGISTRATION
IN PHARMACY.**

FOR THE YEAR 1893.

BOSTON :
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1894.

Commonwealth of Massachusetts.

REPORT.

BOSTON, 13 BEACON STREET, Oct. 5, 1893.

To His Excellency WILLIAM E. RUSSELL,
Governor of the Commonwealth.

SIR:—As required by section 6 of the pharmacy law, the following report of the official acts, receipts and disbursements of the Board are respectfully submitted.

Oct. 4, 1892, the Board met at their rooms, 13 Beacon Street, and organized by the election of H. M. Whitney, president, and F. H. Butler, secretary. The law requires “three regular meetings in each year, one on the first Tuesday of January, one on the first Tuesday of May, and one on the first Tuesday of October; and such additional meetings, at such times and places, as they may determine.” During this, the eighth year, ending Oct. 1, 1893, forty meetings have been held.

At thirty-nine of these meetings five hundred and forty-four applicants were examined, orally and alone, by two or more members of the Board; by a written reply to twenty printed questions, involving about one hundred answers; and by an examination of twenty samples of drugs, simples and compounds. It has been the purpose of the Board to require of each applicant such knowledge, experience and familiarity with drugs old and new, common and specific names, use, dose, antidotes of the ordinary poisons, etc., as shall satisfy us that he is entitled to registration, and is fairly up to the requirements of the day. We desire, at as early a day as possible, to apply the additional test of some practical pharmaceutical work.

As the new Pharmacopœia, in all its preparations, gives the weights and measures in the metric system, a thorough familiarity with it will be required after Jan. 1, 1894.

That we may have granted registration to some who were incompetent is possible; but the following table, exhibiting

results of our examinations, will show an effort at least to do our work fearlessly, and in the interests of the people whom we represent : —

| DATE. | | Members Present. | Examined. | Passed. | Rejected. |
|--------------|-----|---------------------|-----------|---------|-----------|
| 1892. | | | | | |
| October | 4, | 4 | 11 | 4 | 7 |
| | 5, | 4 | 13 | 1 | 12 |
| | 6, | 4 | 16 | 4 | 12 |
| November | 15, | 3 | 9 | 2 | 7 |
| | 16, | 3 | 15 | 4 | 11 |
| | 17, | 3 | 16 | 4 | 12 |
| December | 6, | 4 | 10 | 2 | 8 |
| | 7, | 4 | 15 | 5 | 10 |
| | 8, | 4 | 15 | 5 | 10 |
| 1893. | | | | | |
| January | 3, | 4 | 11 | — | 11 |
| | 4, | 4 | 14 | 4 | 10 |
| | 5, | 4 | 15 | 2 | 13 |
| February | 7, | 4 | 11 | 4 | 7 |
| | 8, | 4 | 15 | 2 | 13 |
| | 9, | 4 | 16 | 3 | 13 |
| March | 14, | 3 | 15 | 3 | 12 |
| | 15, | 4 | 15 | 2 | 13 |
| | 16, | 4 | 14 | 5 | 9 |
| April | 3, | 4 | 13 | 1 | 12 |
| | 4, | 4 | 15 | 4 | 11 |
| | 5, | 4 | 15 | 4 | 11 |
| May | 18, | 4 | 11 | 2 | 9 |
| | 19, | 4 | 15 | 3 | 12 |
| | 20, | 4 | 15 | 5 | 10 |
| | 2, | 4 | 14 | — | 14 |
| | 3, | 4 | 14 | 1 | 13 |
| | 4, | 4 | 15 | 5 | 10 |
| | 16, | 3 | 16 | 5 | 11 |
| June | 17, | 4 | 10 | 1 | 9 |
| | 18, | 4 | 16 | 4 | 12 |
| | 31, | 4 | 15 | 2 | 13 |
| | 1, | 3 | 16 | 5 | 11 |
| | 2, | 3 | 14 | 5 | 9 |
| | 13, | 4 | 12 | 2 | 10 |
| | 14, | 4 | 15 | 5 | 10 |
| September | 15, | 4 | 15 | 6 | 9 |
| | 12, | 5 | 12 | 7 | 5 |
| | 13, | 5 | 15 | 2 | 13 |
| | 14, | 5 | 15 | 4 | 11 |
| | | | 544 | 129 | 415 |

September 12, special meeting, 7.30 to 11 P.M., . . . 1

Sessions for examinations, 39

Total sessions, 40

Of the above 544 examinations, 208 are original or first examinations.

| | |
|---|-----|
| Passed on the first examination, | 51 |
| Passed on the second examination, | 36 |
| Passed on the third examination, | 16 |
| Passed on the fourth examination, | 11 |
| Passed on the fifth examination, | 3 |
| Passed on the sixth examination, | 6 |
| Passed on the seventh examination, | 2 |
| Passed on the eighth examination, | 2 |
| Passed on the ninth examination, | 2 |
| Total passed for the year (about 24 per cent.), . . | 129 |
| Total rejections for the year, | 415 |
| Total examinations, | 544 |

A brief summary of the eight years' examinations exhibits the increasing work of the Board : —

| | Examined. | Rejected. |
|-------------------------|-----------|-----------|
| First year, | 101 | 79 |
| Second year, | 167 | 97 |
| Third year, | 213 | 124 |
| Fourth year, | 276 | 141 |
| Fifth year, | 279 | 156 |
| Sixth year, | 315 | 200 |
| Seventh year, | 488 | 341 |
| Eighth year, | 544 | 415 |
| | 2,383 | 1,553 |

Total passed (nearly 29 per cent.), 830

We regret the necessity which compels us, in making up this report, to record, as in former years, the astonishing ignorance of some who seek to become registered pharmacists, as exhibited by the following answers : —

Proto- and deuto-iodide of mercury are the same.

Hypo, per and sub all mean strong.

Hoffman's anodyne is sweet spirits of nitre. Another said it was tincture of iodine.

Camphor comes from the earth.

Spirit of mindererus is made from acetate of soda and liquor ammonia.

Vinum album fortior contains ninety-four per cent. of alcohol.

Bismuth is an herb, and so is subnitrate.

Simple ointment is pure vaseline.

Simple cerate is pure wax.

Source of pepsin is the gall of a hog.

Lactic acid is used in ulcers.

Hirudo means "hurry."

Fusion is evaporating a substance.

Secale cornutum is hemlock. Another said it was the tops and leaves of some herb.

Solution of persulphate of iron is used as a carminative.

Solution of subsulphate of iron is a weaker preparation.

Lanoline comes from lard. Another said it was from suet.

To detect calomel from corrosive sublimate, drop some of the powder in water, and if it is calomel it will dissolve right off.

Citrine ointment is made by infusing nitrate of lead with nitric acid. Another said it was a mixture of hydrargyri chloridi citras, one-half drachm, with petrolatum, one and one-half ounces.

One applicant, aged forty-six, and claiming to be a physician and pharmacist of fifteen years' experience, when asked what he would do in case of poisoning from nitrate of silver, said he would send for an undertaker. When pressed for an answer as a physician, said he would give an emetic of sulphate of zinc. He also said : —

Perchloride of mercury is calomel.

Deuto-iodide of mercury is red precipitate.

Tincture of aconite, drops and minims are the same.

Secundum artem is two ounces.

If there has ever been an objection to the Pharmacy Board, the above answers to simple questions ought to satisfy any honest person that the "condition of pharmacy in Massachusetts" would not improve without a Pharmacy Board to protect the people from the hazard of such fearful ignorance, by refusing registration unless better qualified.

FINANCIAL STATEMENT.

| | |
|---|------------------|
| Oct. 1, 1892, cash in hands of State treasurer, | \$401 52 |
| Received during the year from applications, | \$2,146 00 |
| Received during the year from six duplicate certificates, | 3 00 |
| Total receipts for the year, | <hr/> 2,149 00 |
| Total amount in hands of State treasurer, | <hr/> \$2,550 52 |

Drafts have been as follows:—

| | Services. | Expenses. | |
|---|-------------------|-----------------|-------------------|
| H. M. Whitney, | \$290 00 | \$148 25 | |
| F. H. Butler, | 570 00 | 299 10 | |
| John Larrabee, | 15 00 | 3 54 | |
| A. K. Tilden, | 167 50 | 12 75 | |
| John A. Rice, | 180 00 | 218 36 | |
| Total, | <u>\$1,222 50</u> | <u>\$682 00</u> | \$1,904 50 |
| T. T. Bailey, services as monitor, | | \$117 00 | |
| Winkley, Dresser & Co., stationery, | | 12 45 | |
| "Vox Populi Press," stamped envelopes, cards and printing, | | 92 25 | |
| C. F. Hatch & Co., rolls for certificates, | | 2 00 | |
| Damrell & Upham, dispensatory, | | 6 00 | |
| G. C. Cannon, engrossing certificates, | | 6 12 | |
| American Publishing Company, printing ques- tions, | | 13 00 | |
| | | | 248 82 |
| Balance, | | | 397 20 |
| | | | <u>\$2,550 52</u> |
| Balance in hands of State treasurer, | | | \$397 20 |

LIABILITIES.

| | | |
|---|-----------------|-----------------|
| Examinations not made (from previous years), | \$81 00 | |
| Examinations not made (from this year), | 282 00 | |
| H. M. Whitney, | 23 25 | |
| F. H. Butler, | 26 30 | |
| G. C. Cannon, | 5 16 | |
| | <u>\$417 71</u> | |
| Leaving a net indebtedness of | 20 51 | |
| | | <u>\$397 20</u> |

The ever-annoying, pestilential evil of liquor selling, occupying so much time of the Legislature, was, during the past year, heroically met, so far as the registered pharmacists are concerned, by the amendments to the pharmacy law, which seem to meet the hearty approval of the people. This legislation was not desired by this Board as a Board of Pharmacy, but as pharmacists and citizens we unhesitatingly say it was wise and timely.

At a meeting of the Board, June 14, 1893, the following resolutions were offered, and after careful consideration were unanimously adopted:—

Whereas, The Massachusetts State Pharmaceutical Association, at the eleventh annual meeting, held at Springfield, Sept. 6, 7 and 8, 1892, by unanimous vote, instructed its committee on legislation to petition the next session of the Legislature for an act to correct the abuse of, and fraud in securing, the sixth-class liquor license; and

Whereas, The Legislature has passed such an act, making it the duty of this Board to investigate complaints and enforce the law, thus expressing confidence in the discretion of the Board; and believing the General Court have voiced the desire of the people of the Commonwealth and all reputable pharmacists of the State; it is therefore

Resolved, That, while the new and additional labors thus laid upon us greatly increase our responsibility and duties, and while, as members of the Board, we regret the burdens, yet we recognize the apparently almost unanimous desire of the people and the demand of our fellow pharmacists; and, as the Legislature has ordered, we must accept the trust.

Resolved, That four thousand copies of the pharmacy law, with recent amendments, and other acts affecting pharmacists, be printed, and ready for distribution at the next annual meeting of the Massachusetts State Pharmaceutical Association, and to other applicants interested.

Resolved, That all complaints properly coming to the notice of any member of the Board must be carefully examined by the agent; and if any case shall appear to be one not requiring a hearing before the Board, it shall be dismissed or delayed for more satisfactory evidence, as it will be the purpose of the Board to avoid unnecessary prosecution.

(Signed) H. M. WHITNEY, *President*.
JOHN LARRABEE.
AMOS K. TILDEN.
JOHN A. RICE.
F. H. BUTLER, *Secretary*.

In this connection we present as a part of our report the following statement, received from our agent, Mr. Vose. It has been impossible to give to every complaint made the time and attention desired; but we submit that, with the sum placed at our disposal, a large amount of work has been accomplished.

AGENT'S REPORT.

LAWRENCE, MASS., Oct. 2, 1893.

To the Board of Registration in Pharmacy.

GENTLEMEN:—I respectfully submit the following report of my labors as agent of your Board for the year ending Sept. 30, 1893.

In October, 1892, I looked over the drug stores in Somerville. A majority of them were complying with the law, although several were not. Four complaints were made for putting up prescriptions without being registered pharmacists, and convictions followed in each case. Three were fined, and one case was put on file. I also visited Worcester in October, and made some investigations upon complaints made to the Board, but could find nothing at that time which would warrant prosecution.

In November I visited the drug stores in Charlestown and Chelsea. Several were found who were not living up to the law, but only one in each place was doing a regular drug business without being registered. Those two were brought into court and convicted. In November I also looked over the drug stores in Wilmington, Woburn, Wakefield and Stoneham. They all seemed to be doing a legitimate business, and no complaints were made.

In December I called at the drug stores in Malden, Melrose, Medford and Everett. They were doing a straight business, with few exceptions, and nothing could be done with any of them criminally. I also finished up some court cases in Somerville and Chelsea, as previously alluded to.

In January, 1893, I went to Lynn and investigated a case, but nothing could be done in the matter. Also went to Boston and New Bedford. At the latter place two complaints were made. The parties were brought into court and convicted. They appealed to the superior court, and their cases are still pending.

In February I went to the superior court in New Bedford, Taunton and Cambridge, and looked after cases which were pending. In Cambridge the party pleaded guilty, and paid his fine. In the other cases further continuance was granted the defendants, and the cases have not as yet been disposed of.

In March I looked over the drug stores in Fitchburg, and found

them all in charge of registered pharmacists. Some of them were apparently doing quite a liquor business; but the police seemed disposed to attend to that, and no complaints were made. I also investigated several complaints in Boston. One man was brought into court, and convicted of doing a drug business without being registered. He was fined, and appealed to the superior court. He changed his location; was brought in later on a similar charge, found guilty, sentenced, and appealed as before. Both cases come before the superior court in Boston some time in October.

In April I investigated cases in Worcester, Palmer, Haverhill and Lowell. Also visited Springfield and Boston. In Palmer a man was found who was running a store for a registered pharmacist in another town. He was not registered himself, and did not claim to be. He was brought into court, found guilty, and paid a fine. In the other places visited no cases could be found which would warrant complaints.

In May I visited the drug stores in Stoughton, Canton and Newton. Also investigated a case in Worcester, which resulted in a conviction. This was the first case for keeping and exposing drugs for sale that had been brought into the courts. The party appealed; but, as nothing has been heard of the case since, he must have withdrawn his appeal and paid his fine. In Newton two stores were found where the real or supposed owner was not registered, and had procured a sixth-class license by taking a registered man into partnership. This case (the Board will remember the special complaint made) was thoroughly considered and discussed. It appearing that the liquor license was granted contrary to the intent of an act approved April 18, 1889 (chapter 270), and if any action were taken by the Board it would appear to be a reflection upon the licensing power, it was a case where the licensing board should correct their own error; and your president so wrote that board. These cases are so common that it would be impossible, even if they had the power, for the Board of Pharmacy, with their limited means, to investigate them. This is a matter which is wholly in the hands of those who grant licenses; and I think more care should be taken in granting licenses to druggists all over the Commonwealth. In Stoughton and Canton everything seemed to be all right as far as the druggists were concerned, with one exception, which was arranged without prosecution.

In June I visited the drug stores in Ayer, Athol, Orange, Greenfield and Turner's Falls. In all of these places the drug business seemed to be conducted very well. There were a few indications of liquor selling, but they were rare. I also visited the drug stores

in Marlborough. Some of them were a disgrace to the calling, but we could do nothing at that time but look them over. Since then one so-called druggist has been brought into court, had his case continued on account of the absence of counsel, and it has not yet been heard.

In July a large number of drug stores in Boston were looked over, and some important matters were looked into and arranged satisfactorily without prosecutions. Several cases in Lawrence were also investigated, and three prosecutions for keeping and exposing drugs for sale followed. They were all convicted and fined. One paid his fine and the others appealed.

In August investigations were made in Cambridge, Marlborough and Boston. There were no prosecutions.

In September several places were visited. In Medway and Milford several matters were adjusted without resorting to the courts. In East Boston, where complaints had been frequent, three parties were found who were keeping and exposing drugs for sale contrary to law. They were brought into court, and two of them were convicted and fined. They appealed to the superior court. The other had his case continued until Oct. 7, 1893. In West Acton a man was found who was doing business contrary to law. He was brought into court at Concord, Mass., where he was convicted, and paid a fine. In Charlestown a case was investigated which resulted in the arraignment of a man who kept a drug store, but is no druggist. He was convicted, and paid his fine. This is the second time this party has been convicted, and he has agreed to give up the business.

There have been twenty-one new cases brought before the lower court this year. Nineteen were convicted, and the other two have not been heard. Of this number, eleven have been settled in the lower court, eight have appealed to the superior court and two have been convicted and paid fines in the superior court; leaving six new cases, and one old case which has been continued from last term, to be disposed of in the superior court, and two to be heard in the lower court.

Having severed my connection with the Board of Registration in Pharmacy as their agent Sept. 30, 1893, I wish to thank each and every member of the Board for their kindness and courtesy to me during my time of service, and hope that they may all live to see good results from the labors they have so earnestly engaged in. My sincere thanks are also due to police and court officials for the assistance they have rendered me in the performance of my duties.

CLINTON P. VOSE.

There have been many cases where application is made for duplicate certificates, claiming the original has been lost. These applications give us a great deal of trouble, for we find in some cases it is purely an effort to secure a second certificate, that two or more sixth-class licenses may be obtained. We require a sworn statement from the applicant regarding the loss, and try in every way known to us to avoid fraud. Without any definite legislation upon this point, we strive to act justly to the applicant and to the State.

On Sept. 12, 1893, a special meeting of the Board was held, from 7.30 to 11 P.M. Messrs. Vose and Learned, who have been acting as agents of the Board, were present. Two hours or more were occupied in discussing the existing conditions, and it was the decided opinion of all present that the cases in court must be pushed to a result. As Mr. Vose could not act for us after October 1, Mr. Learned presented a proposition for one year's service. A resolution was offered, that, in view of all the facts presented, the Boston office must be kept open as much as the funds at our command would allow, and one member of the Board must be in attendance. No positive action was taken. On the 13th the records of the special meeting were read, and, upon motion, the proposition and resolution as above, after a second reading, were adopted by a unanimous vote, all members of the Board being present. The member selected could not at that time be induced to undertake the duties; later on, he decided to accept the trust. It is now the purpose of the Board to be at once in a position to receive at its office in Boston all complaints and charges of violation of the pharmacy law; and if after due inquiry it shall appear that the complaint or charge is without malice, and the interests of the people will be conserved, prosecution will follow.

The Board recognize the responsibility laid upon them, and will endeavor to act fearlessly, but with as much discretion and wisdom as they have. In this connection we desire to convey to you and the Legislature our appreciation of an implied confidence in our efforts, and a recognition of our work in the past; and we trust our acts for the coming year will meet with as hearty and encouraging words of approval

from law-abiding citizens as during the year just closed, and that in due time the pharmacists of this State will occupy such a position as their calling demands, and have absolute freedom from the charges now so unjustly made by some, — that all drug stores are liquor saloons.

As has been often stated in our previous reports, the certificates of registration granted in 1885, forms one and two,* are a continual source of annoyance and hinderance to an improved condition of pharmacy in the State. We have upon our books 3,353 registered pharmacists; 1,255 of them are of form one, 1,268 of form two and 830 of form three, or by examination. We unhesitatingly assert that many certificates of forms one and two are used by irresponsible persons for vile and illegitimate purposes. The amendments made to the law this year will enable us to weed out a few; but if some provision for re-registration, granting a renewal to those only who are known to be engaged in a reputable drug business, should be formulated and enacted, decidedly more rapid strides towards improved and reliable pharmacy would follow.

H. M. WHITNEY, *President.*

F. H. BUTLER, *Secretary.*

JOHN LARRABEE.

AMOS K. TILDEN.

JOHN A. RICE.

* Form one was granted, under the law passed in 1885, to persons engaged in the drug business on their own account; form two, to persons employed in the business having three consecutive years of practical experience (this section of the law has since been repealed); form three, to those who have passed the Board by examination.

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